3 1761 11701929 9

RB8671



Presented to
The Library
of the
University of Toronto
by

F. M. Feehan, Esq.

HANDBOUND
AT THE
UNIVERSITY OF
TORONTO PRESS

CA1
Z 1
-59G21

Government
Publications

Cage

Canada. Royal commission on the
Great Slave Lake Railways.

Hearings. v. 12-14, 1959.

1960


Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

https://archive.org/details/31761117019299

2293

ROYAL COMMISSION

ON

GREAT SLAVE LAKE RAILWAY

HEARINGS

HELD AT

EDMONTON, ALBERTA

VOLUME No.: 12 DATE: Oct. 1/59

OFFICIAL REPORTERS
ANGUS, STONEHOUSE & CO. LTD.
372 BAY STREET
TORONTO
EM. 4-7383 EM. 4-5865

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

ROYAL COMMISSION ON

THE GREAT SLAVE LAKE RAILWAY

Hearings of the Royal Commission on The Great Slave Lake Railway held at Edmonton, Alberta, at the Court House, at 10.30 a.m., October 1st, 1959.

PRESENT:

Mr. M. E. MANNING	Chairman
Mr. WALTER D. GAINER	Member
Mr. JOHN-ANDERSON-THOMSON	Member

Mr. FRANCIS M. FEEHAN	Counsel
Mr. A. PATERSON	Secretary

THE CHAIRMAN: Mr. Levesque?

MR. LEVESQUE: Mr. Chairman, the N.A.R. has considered what went on yesterday in the proceedings. We would appreciate it if we could have an adjournment of the proceedings sine die.

THE CHAIRMAN: So far as the railway company is concerned?

MR. LEVESQUE: Yes.

THE CHAIRMAN: We have discussed it, Mr. Levesque. You have advised us informally that you were going to make this application, and we are in agreement, are we not, that the application should be granted.

Thank you very much, gentlemen.

MR. LEVESQUE: Thank you very much, Mr. Chairman.

SUBMISSION OF

WESTCOAST TRANSMISSION COMPANY LIMITED

Appearances:

Dr. G. S. HUME Vice-president

THE CHAIRMAN: Mr. Hume, you have been good enough to prepare a brief on behalf of Westcoast Transmission, and if it is convenient to you we would appreciate hearing from you now.

Would you like to read it from the witness box or from the Counsel table?

MR. HUME: From the witness box, sir.

Mr. Chairman and members of the Commission, some of this report, this brief which I have prepared,has already been given to you in the brief by the British Columbia Government, so that if it is agreeable to you, sir, I will read the part that was not contained in the British Columbia brief and summarize briefly the part which was in the British Columbia brief.

THE CHAIRMAN: Thank you very much.

MR. HUME: Westcoast Transmission Company Limited, a company incorporated by Special Act of the Parliament of Canada in April, 1949 and owner of a gas transmission pipeline from the Peace River gas fields of northwestern Alberta and northeastern

British Columbia, is vitally interested in the resources development of northwestern Canada particularly in relation to natural gas discoveries. It is well known that transportation facilities are essential for exploration and development of the oil and gas resources, and hence, Westcoast has a direct interest in any means of transportation which will facilitate access to any areas that may offer favourable prospects for investigation.

It should be made clear, however, that although a railroad will provide access to new areas which it crosses, roads will perform a similar function. It should also be made clear that oil and gas developments in themselves provide little revenue to support a railroad since transportation of these substances is much cheaper by pipeline. However, secondary industries as the result of oil and gas developments, may require a railroad and the proper conservation of some substances derived from oil and gas production may become impossible without railroad transportation.

This brief consists of observations concerning (1) Gas and Oil Resources of Northern Alberta and Northeastern British Columbia, (2) Prospects for Ultimate Reserves of Gas and Oil, (3) The Influence of the Alaska Highway as a Means of Access to the area of Development, (4) Industrial Development as a Result of Gas and Oil Discoveries, (5) Marketing

of Products, (6) Summary.

Now, sir, the next part of this report up to page 11 has already been contained in the British Columbia brief. This is simply a statement of the oil resources of the northern part of Alberta, including a statement in regard to the oil sand area of the Athabasca. As I point out in this, the development of the oil sand area has been relatively slow; in fact, there is no production yet, although the deposit has been known for three quarters of a century - well known, actually - whereas the development of the oil and gas resources of the western part of the area under consideration, the Peace River area, has been extremely rapid indeed. The first wells were found in the Fort St. John area, the first well was drilled at Fort St. John, and completed in 1951. It was not a productive well, although it gave indications that it would be found in the area. Number 4 well was completed in the following year, that is 1952, what really gave the incentive for that part of the Peace River area. Since then progress has been very rapid; a pipeline has been built, increasing exploration year after year has taken place, until now most of the area is under permit and lease and a great deal of exploration is being done.

There are widespread oil and gas occurrences, and these have been set forth in a table showing the horizons that have so far been found to be productive.

I think if you add these up you will find there are about 12 which are really nearly all good productive horizons in many areas, not all in one area. I think that there are so many productive horizons in the area that, in my opinion, it makes the area one of the most attractive in the sedimentary basin which is likely to produce oil and gas.

THE CHAIRMAN: You say the whole sedimentary basin?

MR. HUME: Yes, and that would include the area along the international border from the Pre-Cambrian Shield to the Rocky Mountains, northwestward to the mouth of the Mackenzie River.

THE CHAIRMAN: And we have these maps.

MR. HUME: That map, the one behind this - the yellow shows the extent of the basis.

THE CHAIRMAN: That is map number 3.

MR. HUME: Map number 3 is included also in my report, a copy of that is in the report, and shows the extent of the basin.

THE CHAIRMAN: Map number 3, called "The Principal Mineral areas of Canada", showing a variety of colours, and it is the yellow colour that is the sedimentary basin that you have referred to.

MR. HUME: Yes, roughly. It isn't quite exact on that map, but it is close enough to all intents and purposes.

As I say, it is the number of producing

horizons in this area which really make the area very attractive which I have no doubt has led the oil companies to so regard it and, consequently, there has been rapid development.

There have been some very spectacular discoveries within the last year. I might mention these, because I think they have some relation to what will follow. During last winter two very important discoveries were made, with which I am sure you are familiar, that at Petitot River which is very close to the northern part of British Columbia, in the Fort Nelson area, as used in a general sense, and the Kotcho Lake area, which again is northeast of Kotcho Lake, which again is northeast of Fort Nelson. These are on a - you can see these on a map in the report which follows on page 14. Kotcho Lake is marked there east of Fort Nelson, and Petitot River is northwest of Kotcho Lake.

THE CHAIRMAN: These are both big discoveries.

MR. HUME: Those are both big gas discoveries. There hasn't been much information on them and there is only one well in each area, but both of them have been very significant gas discoveries.

Another recent discovery of very great importance is the Sinclair Lily well which is west of the highway, the Alaska Highway, and west of the area which is now presently under development by Pacific and Westcoast called the Jedney Bubbles.

THE CHAIRMAN: That is west of the Jedney area.

MR. HUME: Yes. That was a very important discovery last winter. Also it is a well that has an open flow of about 25 million feet a day.

A more recent discovery, not on this map, is a well that has been completed by Shell Oil Company in the Worsley area about 30 miles northwest of Hines Creek.

I mention these in particular because these are what we call reef discoveries.

THE CHAIRMAN: All those four are reef discoveries.

MR. HUME: No, with the exception of the Lily well. The Lily well is not.

COMMISSIONER GAINER: The Worsley one is gas.

MR. HUME: The Worsley one is gas. I may just outline for you the importance of these reef discoveries. The first two, the Kotcho Lake and Petitot Lake, are in a formation which we call Slave Point. Slave Point formation outcrops, comes to the surface, in other words, at Slave Point on the north shore of Great Slave Lake. At this point it shows traces of oil and the beds under it, which are known as the Presquile are the beds in which the lead-zinc deposits have been found, and in those beds at the outcrop at Slave Point there are very large seepages of oil, they are extensive, quite extensive

seepages of oil. These dip in the southwest direction so that they become covered by younger sediments to the southwest. It was my opinion many years ago, and it is still my opinion, that the area southwest of these outcrops of the Slave Point and the Presquile formation are very favourable prospecting areas, and that would extend all the way from the southwest from Slave Point towards the Liard River and towards the northeast corner of British Columbia and the northwest corner of Alberta, the very southeast corner of the Yukon. All that is very excellent prospecting territory. The fact that these two gas wells, Petitot River and Kotcho Lake, have been found in the Slave formation I think it bears out that contention. However, I may say that the Swan Hills field, Swan Hills oil field, which is south of the Lesser Slave Lake, is about the same age, if not the same age, as the Slave Point. I really call it the equivalent of the Slave Point. It may be slightly different in age, but it is the reef growing variety in connection with the same deposits.

So that in the Swan Hills area we have now what looks like a really major oil field. It really looks like a very substantial oil field, and this again is further evidence of the prolific nature of the oil-bearing formation called the Slave Point.

The Swan Hills field is about 425 miles, if you measure it on the map, south of Slave Point outcrops. The Fort Nelson area is about 270 miles southwest. So, this gives you some idea of the size of the possible prospecting area in there which, if suitable structures are found to contain oil and gas, has a tremendous significance from the standpoint of any company like my own.

The reef found at Worsley, the recent discovery by Shell -- the Worsley wells -- is of a different sort. It is younger in age than Slave Point and is, in fact, the same age as the reef production in Redwater and Leduc fields.

THE CHAIRMAN: Which is that?

MR. HUME: Worsley; it is about 30 miles northwest of Hines Creek.

THE CHAIRMAN: That well came in just a short time ago -- two or three weeks ago?

MR. HUME: Yes.

THE CHAIRMAN: That is the only one that has come in north of Peace River?

MR. HUME: That is right. There were three tests, and they were all fairly large, and I

have only the information released by Shell Oil Company. I have no special information on it, but anybody in the oil and gas business knows it is a very significant discovery.

THE CHAIRMAN: Is that what we refer to as the D3 formation?

MR. HUME: Yes, the Leduc or D3 formation. I do not know that it is necessary to dwell any further on this, except that it may be of interest to the Commission to give a little background of these reefs in relation to the structure in the area extending from Peace River down to Dawson Creek.

In the early geological time there was a Pre-Cambrian arch in this area -- a Pre-Cambrian mountain you might call it.

THE CHAIRMAN: Is a mountain and an arch the same sort of thing?

MR. HUME: I am only using "arch" in the sense of shape. I am not using "arch" in the sense of structure. A Pre-Cambrian ridge may be a better expression.

THE CHAIRMAN: From Peace River?

MR. HUME: From Peace River Town to Dawson Creek, and extending westward from there. This ridge was above sea level during the early part of the Devonian deposition, so that the Devonian forms lapped up on the edge of the ridge, and at the Slave Point stage and at the D3 stage, which was younger,

reefs grew around the ridge. So, these reefs that are being found -- they will not all be productive; they will only be productive where there is a trap, otherwise they will contain water. However, at various places they are found to be productive. Around the south side of that reef there is Eaglesham production, there is D3 production, and D3 production at Norman field, and now, on the north side of the ridge at Worsley. So, this enhances the whole prospecting area in there and makes the search for this reef production in the whole area north of the ridge very attractive.

THE CHAIRMAN: As well as south of the ridge?

MR. HUME: Yes, as well as south of the ridge.

COMMISSIONER GAINER: Has this arch been fairly well defined in terms of both direction and depth?

MR. HUME: Yes, it is very well known from geophysical work and from other information -- wells that have penetrated to the actual ground. The field northeast of Peace River Town, about 70 miles -- what they call Red Earth -- is the detrital material.

THE CHAIRMAN: What kind?

MR. HUME: Weathered material that weathered down into the valleys. This material contains oil.

THE CHAIRMAN: That is what is called the granite wash?

MR. HUME: Yes, sir, and that has come off this reef. In that area the Slave Point formation has also been found to be productive of oil. So, it may be the conclusion is not established, but you could conclude perhaps that the oil in the granite wash certainly did not originate in the granite wash, and has some relation to what has been found in Slave Point. So, you get the outer circle of the Slave Point which is older, and you get the inner circle of the D3 reef which is younger, and at various points, as prospecting goes on, they are being found to be productive.

THE CHAIRMAN: The area you referred to sounds to me as though it is more important west of Peace River by a good deal than it is east: am I right in that?

MR. HUME: Yes, the whole development shows that the western part of this area is far more important than the eastern part of this area which has been under consideration from your standpoint in regard to the railway. That is due to the fact that the deposits to the eastward towards the Pre-Cambrian Shield become thinner, and many of them are bevelled off and disappear before they get to the Pre-Cambrian Shield, so that there are lenses, lenticular formations, thickening westward where you get many more formations that have been found to be productive, as in the St. John area.

COMMISSIONER GAINER: You speak of this ridge, and presumably the Pre-Cambrian which outcrops now would be even higher over on what we call the Shield now -- it would be higher than this arch?

MR. HUME: The top of the ridge I don't think would be any higher than the Pre-Cambrian surface, but you would have some of these ridges, like those occurring in the Pre-Cambrian, buried under the Devonian sediments.

COMMISSIONER GAINER: So, you would have this ridge between the dip and the outcrops?

MR. HUME: There would be a little bit of a basin.

COMMISSIONER GAINER: This would be coral reef formation, and would you not get that on both shores?

MR. HUME: As I pointed out, you do get it 70 miles northeast of Peace River Town in the Red Earth area. That is the Slave Point part.

COMMISSIONER GAINER: But, that would be the west shore of your sediment when it was laid down on this ridge, but I am speaking now over where the Pre-Cambrian now comes out.

MR. HUME: Yes.

COMMISSIONER GAINER: And the deposition in that dip. On the east side of that dip towards the Pre-Cambrian which now crops out, would you not get a similar type of reef formation on both sides

of that deposition?

MR. HUME: You could do so, but the sediments get progressively thinner eastwards, so that the thicker sediments to the west which allow the oil to be preserved is much better prospecting ground. It does not eliminate it as a prospecting territory, but it is not as good as further west.

COMMISSIONER GAINER: Structurally, they would be the same, but if it is oil-bearing there would be a greater amount of that favourable structure on the west?

MR. HUME: Wherever you get reefs you don't necessarily get oil. There has to be a favourable structural trap -- something that holds it.

I think it may be interesting to the Commission if I gave you a short summary, which I have here, in relation to the prospects of the sedimentary basin as a whole.

THE CHAIRMAN: That is not in your report?

MR. HUME: Yes, sir, it is, at page 11.

In its submission to the Royal Commission on Energy, the Canadian Petroleum Association estimated an ultimate possible reserve of 300 trillion cubic feet of natural gas and 50 billion barrels of oil for the Western Canada sedimentary basin stretching from the Precambrian Shield in Manitoba to the Rocky Mountains and from the Canada-United States boundary to the mouth of Mackenzie River. This

reserve estimate is based on a volume of sediments method in relation to production in other parts of the world. The estimate has been largely supported by a number of major oil companies, but it should be stressed that the figures should be accepted only as giving the order of magnitude and are not meant to indicate precision in absolute measurements.

In making the ultimate reserve estimate, the size of the western Canada sedimentary basin was considered to be approximately 712,000 square miles containing 956,000 cubic miles of sediments with a thickness in excess of 1,000 feet. British Columbia was considered to have 115,318 cubic miles of sediments in contrast to 341,715 cubic miles in Alberta or approximately half as much.

It is obvious in using such a method that it is much more applicable to the basin as a whole than it is to any individual part; in fact the smaller the area considered the more hazardous would be any estimates assigned to it. The matter of distribution by provinces or territories of the possible 300 trillion cubic feet of gas and 50 billion barrels of oil estimated as ultimate reserves for the whole basin, thus becomes a matter of judgment based on knowledge of the geology and experience in reference to discoveries related to structure and stratigraphy. The Committee for the Canadian Petroleum Association considered that a breakdown of 150 trillion cubic feet of gas for Alberta and 75 trillion cubic feet for northeastern British Columbia with an average of 6,000 cubic feet of gas for a barrel of oil would be as good an estimate as could be made at present but admitted these might be maximum figures and that 180 trillion for Alberta and British Columbia combined would be a safer estimate. These figures applied to northeastern British Columbia would give ultimate reserves of 75 trillion cubic feet of gas and 12.5 billion barrels of oil as a possible maximum and 60 trillion cubic feet of gas and 10 billion barrels of oil as a possible minimum.

THE CHAIRMAN: Dr. Hume, in those estimates, are you calculating the same proportions of oil for gas in northeastern British Columbia as well as Alberta?

MR. HUME: Yes, a figure which has been substantiated by what has been found in the United States and arrived at, which is about 6,000 cubic feet to the barrel.

THE CHAIRMAN: So far as the proportion of gas to oil is concerned it is higher in British Columbia than in Alberta?

MR. HUME: Somewhat higher, yes, sir, but the recent discoveries of oil in Alberta may change that trend -- Boundary Lake, Doig Lake and Beatton River. On an application for a pipe line held recently in British Columbia four companies made application, and the figures for the oil reserves in northeastern Alberta -- I mean, northeastern British Columbia ---

THE CHAIRMAN: You mentioned Alberta a few minutes ago, and you meant British Columbia?

MR. HUME: Yes, northeastern British Columbia -- would be somewhat of the order of 170 million to 200 million barrels at the present time. But, you are quite right; as a whole, British Columbia has shown a higher ratio of gas to oil than what I am quoting here.

THE CHAIRMAN: Yes.

MR. HUME: Again it should be emphasized that these figures only represent the order of magnitude of possible ultimate reserves. Thus, even though they are highly speculative they do give to a certain extent a quantitive appraisal of the

prospects which otherwise can only be expressed by relative terms. Their value, therefore, is in their magnitude in making plans in reference to future developments.

Now, sir, I refer to the finding of the oil in the Yukon and I do not think it is important to read it. The only importance it has is that it has and will stimulate further exploration, and I have no doubt that that exploration will be stimulated not only in the northeastern part of British Columbia and the northwestern part of Alberta, but also in the Yukon and in the Northwest Territories.

THE CHAIRMAN: There does not seem to be any let up in exploration, does there, Dr. Hume, that has been brought about by the present circumstances of oil in western Canada?

MR. HUME: To a certain extent there is, but apparently there is less development but more exploration.

THE CHAIRMAN: Has the rate of exploration fallen off much, or any, in the ---

MR. HUME: It has during the summer, to some extent. The number of seismic parties has not been as large. Whether or not that will pick up in the winter is difficult to say. I think that possibly it may, because a lot of this country, which is muskeg country, is very difficult of access in the summer, and is much easier of access

in the winter, so in the northern parts there is very much exploratory activity in the winter than in the summer.

In the above discussion of gas and oil prospects, the emphasis intentionally has been placed on the western rather than the eastern part of the sedimentary basin, the edge of which is east of the Athabasca river northeast of McMurray extending to Fitzgerald on the Slave river. The rapids between Fitzgerald in Alberta and Fort Smith in the Northwest Territories are caused by the river flowing over Precambrian rocks. This emphasis on the western part of the basin, however, should not be considered to exclude the Peace River area in Alberta where numerous gas and some oil fields already have been discovered. There is, however, many more possibly productive gas and oil zones in the west than in the east since a number of prospective zones present on the Alberta-British Columbia boundary are entirely absent, a hundred miles east at the town of Peace River. Thus, as far as any railroad location may be affected by considerations of oil and gas developments, more prospective territory will be served by the farther west location in Alberta in preference to a more easterly location.

The next paragraph deals with the influence of the Alaska Highway -- that is, as an access to an area. A glance at any map outlining the gas

and oil discoveries will demonstrate the influence of transportation access on developments. As far as northeastern British Columbia is concerned the Alaska Highway has been the means of opening the area immediately adjoining it to extensive exploration. A very considerable part of the country is not easily accessible in summer but exploration during the freeze-up period of winter has proceeded vigorously. New discoveries by drilling have stimulated exploration outward from the highway at an increasing rate at a pace that hardly would have been credible a decade ago when there were no productive wells in British Columbia. It can be predicted with considerable assurance that the recent discoveries of gas, particularly in the Fort Nelson area and the development of the oil fields of Boundary Lake, Milligan, Beatton River and Blueberry, are but the beginning of more extensive discoveries that will be made in the near future.

Industrial Development as a Result of Gas and Oil Discoveries: On October 1, 1957, Westcoast Pipeline commenced delivery of Peace River gas to serve the residents of the Vancouver and interior areas of British Columbia as well as part of the northwest Pacific area of United States. Previously, Dawson Creek had been served by a pipeline from the Pouce Coupe field in Alberta. Grande Prairie was originally supplied with gas by a pipeline from the

Rycroft field. An extension was later built to Spirit River and tied into the Hamelin Creek field.

In order to make pipeline gas available for use, it was necessary for Westcoast to construct on the north bank of Peace River at Taylor, B.C., a gas scrubbing plant which processes the raw gas and recovers butane, propane, etc. The approximate cost of the scrubbing plant was 20 million dollars. In addition, Westcoast entered into an agreement with Jefferson Lake Sulphur Company for processing acid gas to recover elemental sulphur. The initial design capacity of this plant was 300 tons of sulphur daily.

It might be interesting to note there that we have not been producing 300 tons per day, but we have producing up to 120 or 130 tons a day which at an average of 120 tons a day would make about 36,000 tons a year.

COMMISSIONER GAINER: To where does that move at the moment?

MR. HUME: It is all going to the west coast by the railroad to be used in the paper industry -- I should say it is mostly used in the paper industry. Jefferson Lake has control of that. I do not know too much about it, actually, but I do know that the sulphur is moving out of our Taylor plant.

COMMISSIONER GAINER: What could you figure roughly the price per ton or the value per

ton, at the plant to be? Can you just give us some idea?

MR. HUME: I am afraid I do not have any figures, but I will be glad to supply those to the Commission if you wish them.

COMMISSIONER GAINER: Could you give us just a rough estimate?

MR. HUME: Well, sulphur in the central part of Canada would bring about $21 or $22 per ton. I have not any idea what the price is at the plant, but if you wish I can get it for you. We have a contract with Jefferson Lake Sulphur, and that is all handled by them. I might point out, sir, that this is rather substantial freight because 300 tons a day would be about 90,000 tons a year, which is almost 100,000 tons and is almost half of all the concentrates that were going to be supplied from the Pine Point operation.

THE CHAIRMAN: Is it likely you will go up to the 300 tons per day?

MR. HUME: I would not like to make a comparison -- 300 tons a day is the design of this plant.

THE CHAIRMAN: Is it likely to reach that?

MR. HUME: We hope so. We think so, yes. I would not like to make a comparison -- it depends on the market for sulphur as to how much is shipped, and that is something which is in the hands of

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

Jefferson Lake Sulphur. I do not know how long we can go on producing sulphur in British Columbia without having a surplus. With the new pipelines going in the sulphur that is going to be available is going to be a very large amount.

THE CHAIRMAN: Sulphur is not as valuable as the concentrates, is it? Does it command a similar freight rate, do you know?

MR. HUME: I really do not know, sir.

The gas scrubbing plant is operated under contract by Phillips Petroleum, which company with Pacific Petroleums is extending the refining facilities of the Taylor Plant. Pacific and Phillips also own the X-L refinery at Dawson Creek. Part of the liquid petroleum products recovered at the scrubbing plant at Taylor are used at Dawson Creek to increase the octane rating in the production of gasoline. Asphalt used for paving the Alaska Highway from Dawson Creek to Charlie Lake, a few miles northwest of Fort St.John, was produced in the X-L refinery. The X-L refinery has been operating at about 2,500 barrels a day on oil produced in the Peace River area mostly from Boundary Lake from which field it has been trucked. There are now four applications before the Minister of Commercial Transport in B.C. for the building of an oil pipeline to Taylor and Dawson Creek with possible further extensions when the volume of oil is sufficient to justify this.

The construction of the Westcoast Pipeline

and the industrial development that has directly resulted from this, led the British Columbia Government to extend the Pacific Great Eastern Railway to Taylor. I think that is a fair statement, sir.

THE CHAIRMAN: To extend it from where to Taylor?

MR. HUME: To extend it from Prince George.

THE CHAIRMAN: Do you mean the whole extension?

MR. HUME: Well, I would not say the whole extension is based entirely on what they are going to get out of the Peace River area. There were other factors involved -- forestry, and all the rest of the resources -- but I think the fact that the plant at Taylor was going to supply a substantial volume of freight was the deciding factor in the end.

THE CHAIRMAN: How great a distance is it from Prince George to Taylor?

MR. HUME: I would have to measure it on the map. I really do not know.

THE CHAIRMAN: It does not matter. We can find out.

MR. HUME: Yes,it is very easy to measure it on the map. I really do not know what that distance is.

COMMISSIONER GAINER: Dr. Hume, if I may interrupt for a moment, what are they doing presently with the petroleum gases? Is there a market for them?

MR. HUME: Well, we were not saving all the butane, but they are trying to bring the two refineries -- the X-L refinery at Dawson Creek and the new refinery at Taylor -- into a combined operation so that we will use a great deal of the butane in making gasoline.

COMMISSIONER GAINER: In the refining operation?

MR. HUME: Yes.

COMMISSIONER GAINER: And what about propane?

MR. HUME: I think it is being sold, but I do not know just where the market has been. I cannot tell you whether any is going over the railroad or not. Again, I can find out for you if you wish that information, but I have not got the data.

COMMISSIONER GAINER: Just offhand, there is no substantial amount going by tank car?

MR. HUME: No, I am not aware of any. I will get that information if you desire it,because---

COMMISSIONER GAINER: No, I do not think it will be critical, but I was wondering from the point of view of interest.

MR. HUME: No, I cannot say what is being done with these products.

COMMISSIONER GAINER: There has been no industrial development that has taken place as a result of this other than the refinery operation?

MR. HUME: None of which I am aware -- no petrochemicals.

Without the railroad, the shipment of sulphur to west coast paper mills would be impossible and the gas price would have to bear the cost of extracting the sulphur which otherwise could not be sold. At present, the disposal of butane has not been without some waste, but this will be mostly rectified when the Taylor refinery is extended to operate in balance with the Dawson Creek refinery. The disposal of excess amounts of butane which will undoubtedly occur with the discovery of more wet gas fields, will depend on the economics of shipment by rail to the Pacific coast where there is a market. The disposal of butane should not be regarded as a problem peculiar to the Peace River area. An excess seeking a market is likely to occur in southern Alberta in the near future.

Marketing of Products: When the West-coast Pipeline route was under discussion there was opposition to the route finally approved through central British Columbia. It was thought by officials of some other proposals, that the pipeline should be brought southward and eastwards from British Columbia through the good gas and oil prospecting territories adjoining the foothills in Alberta. The outlets would then have been through southern Alberta either eastwards or southwestward to the Pacific Northwest area. As far as passing through good prospecting territory and hence providing a market for gas discovered en route, such a pipeline would

have undoubtedly served a useful purpose. On the other hand, development of considerable gas along its route in Alberta would have greatly restricted northern development because as soon as a surplus supply became available, northern development would not be warranted, except as a long-term proposition, to provide more gas for an already saturated market. Thus the most direct route to markets, where the resources of the area being tapped were sufficient to justify the construction, seemed much more preferable.

Most products lend themselves to export by sea and it may be in the future this will also apply to natural gas that has been liquefied.

THE CHAIMAN: Has much been done on that? I have read a few newspaper articles.

MR. HUME: Yes, sir. It has sort of quieted down. There was a considerable stir when this ship took liquefied gas from the southern part of the United States to England. I think it is wholly a matter of economics.

THE CHAIRMAN: Does it look as though processes are likely to be developed which would lead to a good deal of that sort of thing?

MR. HUME: Sir, there was a speech by one of the members of the Federal Power Commission in Washington which leads me to say that, on the basis of that speech, he thought eventually that this liquefied gas from foreign countries would compete with markets on the east and west coasts of the United States.

THE CHAIRMAN: What had he in mind?

MR. HUME: Venezuela, where large amounts of gas are being wasted.

THE CHAIRMAN: He said eventually. How long a period of time?

MR. HUME: It is again a matter of economics. I couldn't really give you any estimate of time. I

know that some of my friends who are very familiar with this operation were pretty enthusiastic about it; that is about all I can say.

THE CHAIRMAN: Is it something that might occur in five years, would you say?

MR. HUME: It could, yes.

THE CHAIRMAN: I suppose it would be hard to say. You couldn't say it is probable within five years.

MR. HUME: It is possible. It is feasible now. How economic it is I can't say.

COMMISSIONER GAINER: Do you know of other instances where methane was moved this way?

MR. HUME: I believe it was moved up the Mississippi River to the stockyards.

COMMISSIONER GAINER: Was that methane?

MR. HUME: Yes, natural gas, methane. It had a double purpose there. This is from conversation with various people I know. It is very cold and they used it in their refrigeration and then burned it in their Chicago stockyards.

COMMISSIONER GAINER: Do you know anything further other than the newspaper article that this shipment was going by boat? Is this the Balsa line shipment to Britain?

MR. HUME: Yes.

COMMISSIONER GAINER: Do you know how that came about?

MR. HUME: Well, I know the people that were responsible for this and, as I say, they were quite enthusiastic about it.

COMMISSIONER GAINER: That has been since the time the shipment was made?

MR. HUME: Yes. Whether they intend to go ahead with this or not, I have no idea whatever. As an experiment, I think it is fair to say it was a success. Whether it is a success as a commercial operation is something else.

COMMISSIONER GAINER: It might be more so if they used under-water methods where you could get pressure cheaper, I suppose.

MR. HUME: Yes.

It would appear, therefore, that where a surplus for export is available, that instead of an approach inland toward the central part of the country either by pipeline for oil or gas or by rail for most other products, the logical location for any transportation system is the most direct one, to the seaport of export. Thus, from the standpoint of exporting products from the Peace River area, the western location for the northern Alberta extension with a tie-in to the railway to the Pacific Coast as a direct outlet for materials to be exported by sea is the choice that would appear to be consistent with the public interest. Since such a western location is through the part of Alberta that has much better

prospecting value from an oil and gas standpoint, the argument for the western location becomes even more persuasive. I am only speaking to this in relation to oil and gas.

It is, however, recognized by Westcoast Transmission Company Limited that the primary consideration for an extension of a railroad into Northern Alberta and the Northwest Territories is not the development of the oil and gas resources. However, in servicing the development of other resources, it would be advantageous if the railroad could also serve these, which it could best do if the location was made through the more westerly or Peace River area rather than through the more easterly area.

Summary: The development of gas and oil fields is dependent on access to prospective areas of production. If rail transportation was available through any area there is no doubt in the early stages of exploration and drilling this would provide the means by which drilling equipment, casing and other supplies could be handled to facilitate development from the nearest rail point.

THE CHAIRMAN: Anymore easily than if it was a road?

MR. HUME: Not necessarily so. I think over long distances it might come by rail, simply because there are facilities for making pipe in Alberta; but previously the casing coming into Alberta came from

other sources than in Alberta and hence came by rail.

However, in the later stages of development and during most of the production stages after the fields are delineated, there will be little revenue to a railroad except from centres of population built because of the need to service the fields. This will be relatively insignificant. There is, however, the strong probability of industrial development as in the Fort St. John area, following oil and gas discoveries. The extent of this cannot be forseen as it depends in a very considerable degree on the by-products resulting from production. There is no way of predicting in advance, if gas and oil are found, whether they will be sour or sweet - that is whether they will contain sulphur or not -although within certain limitations the character of the oil or gas may have the same general characteristics for each particular horizon within restricted areas. The disposal of by-products may require rail facilities but costs of shipment dependent on distance from markets needs to be considered. In this respect, the more northerly parts of Canada are in an unfavourable position in respect to the southerly parts which are likely, as far as gas and oil developments are concerned, to be producing similar products. Thus, although rail facilities built into prospective oil and gas areas would aid development and thus create settlements to provide rail revenue, there is ample evidence that

roads, like the Alaska Highway, offer much more flexibility of use. In giving consideration to any extension of the rail facilities in northern Alberta, it would seem, therefore, that oil and gas developments are not a primary concern. On the other hand, other conditions being equal, the choice for any railway extension in Alberta would be strongly in favour of the westerly route as a means of stimulating development in an area, the underground resources of which, are likely to be mainly gas and oil because of the fact that the prospects in the westerly areas are much more favourable than in the more easterly areas.

There are two maps in the back of the report, one we have already referred to, and the second one is a map published by the Geological Survey of Canada, showing the oil and gas developments in Alberta and British Columbia as a whole.

THE CHAIRMAN: I would like to ask a few questions, Mr. Hume. Can you tell us anything about how railways have worked out in areas like the Near East where there are extensive oil fields?

MR. HUME: I have never had occasion to even consider it. I wouldn't know. I do not know.

THE CHAIRMAN: And in speaking of how the railway would encourage oil and gas development, would a railway from Grimshaw north add much in view of the fact that there is already a highway up there now?

MR. HUME: No, sir, I don't believe it would.

THE CHAIRMAN: The value of the railway along that route in regard to oil and gas is in connection with the industrial development which might follow.

MR. HUME: Yes, the by-products.

THE CHAIRMAN: The development of by-products.

MR. HUME: That is right.

THE CHAIRMAN: Can you give us any more information about the prospects of that type of industrial development than you have already given us?

MR. HUME: No, sir, no more than when the fields were found at Fort St. John nobody knew whether they were going to contain sour gas or sweet gas until the analyses were made. That is true of any gas field. If it contains a lot of sulphur you know when you strike it it does contain hydrogen sulphide. You can't predict ahead and you can't predict whether those gas lines are going to be bearing or not. I have been told the Kotcho Lake is relative low in sulphur.

THE CHAIRMAN: You have mentioned sulphur and butane?

MR. HUME: Yes. Propane will probably find a market, but the sulphur and butane will probably be very difficult.

THE CHAIRMAN: The industrial development in the far north in regard to sulphur and butane doesn't look too promising.

MR. HUME: It would mean finding a market and getting them at the West Coast.

THE CHAIRMAN: Even from southern Alberta the surplus would compete with the West Coast.

MR. HUME: Yes.

THE CHAIRMAN: With anything coming from the north.

MR. HUME: Yes.

THE CHAIRMAN: What is the situation in regard to prospecting and industrial development where there is gas? I have in mind the use of gas for power.

MR. HUME: It is actually, I believe, more economical to take the gas to the place where it is going to be used than it is to take the industry to the gas.

THE CHAIRMAN: You couldn't hope for industrial development in the far north because there is cheap gas right there.

MR. HUME: No, sir. That statement that I have made only applies to certain things. Now, it might not apply to certain parts of the chemical industry, but to a lot of industries it might apply.

COMMISSIONER GAINER: You say that in that area it would likely be less of a problem to market, that is in regard to propane. What would you have in mind? - for farm heating and that sort of thing?

MR. HUME: Yes.

COMMISSIONER GAINER: What is the situation?

MR. HUME: Small towns, farming. I haven't delved into this marketing problem at all. Pacific

Petroleums would have considerable information on this in relation to their refineries, but West Coast has not been interested in the problem particularly.

THE CHAIRMAN: It seemed to me, as you were describing the oil and gas prospects, that the best prospects are a considerable distance west of the proposed railway route north of Grimshaw.

MR. HUME: They are west. That does not eliminate the prospects along the road itself. Anywhere from Great Slave Lake down the west dip, where the structure is present or where something has prevented the upward migration in the formations of oil and gas, you could have a possible gas and oil field. You could have them at relatively shallow depths if there was a trap.

THE CHAIRMAN: It is not much more likely, is it, that those will be sought after or explored for if a railroad is built in there, in view of the fact there is now a highway?

MR. HUME: Well, there is a certain amount of exploration already going on in those shallow sediments. There has been some drilling done along the Hay River, not too far south, and I believe in the Fort Providence area where the sediments are nearly as thick as they are further west.

THE CHAIRMAN: Would you anticipate much more development if the railway were built along there?

MR. HUME: No, sir. I think that an oil company would use the road in preference to the railroad because of the fact that the railroad - well, perhaps there is a run only at stated intervals, whereas the road is available at all times.

THE CHAIRMAN: And you can stop anywhere on the road?

MR. HUME: Yes, it is a matter of flexibility; the road is much more flexible for use than the rail-

road.

COMMISSIONER GAINER: You evaluated the notion of potential for prospecting in relation to gas and oil: would you be able to tell us a little more about that in relation to other things for that region, and the general geology of it? You mentioned the Slave Point outcropping and the dip there.

MR. HUME: There isn't a great deal of potential in sedimentary rocks. I think the finding of these iron ore deposits in this Peace River area was a bit of a surprise. There are sedimentary deposits that may have some importance; I don't know. However, the potential for minerals in the sediments themselves is not great.

COMMISSIONER GAINER: What about the Pine Point Development, for instance: what are the prospects?

MR. HUME: Well, the Pine Point deposits are in this formation which we call the Presquile, and the Presquile is only two or three hundred feet thick, so that the width of the outcrop is not very large in relation to the country as a whole, and as it goes west it is buried, and as it goes east it is eroded off, and the next formation comes to the surface.

COMMISSIONER GAINER: At what angle is it likely to dip to the west? How far does it have to be before overburden would become limiting?

MR. HUME: One degree would make 100 feet to the mile, and that would not be very much.

COMMISSIONER GAINER: Would there be a region, a strip where this whole stratum would come to the surface?

MR. HUME: That is right, and Mr. Jewitt referred to that on the north shore of the lake; that is the outcrop that is comparable to the area south of the lake.

COMMISSIONER GAINER: Otherwise it is submerged?

MR. HUME: Yes.

COMMISSIONER GAINER: And south-easterly it is eroded off?

MR. HUME: South-easterly it disappears. This Presquile formation is a very porous formation and it has some relation to the reef, and I think in deposition it changes its character to the southeast.

COMMISSIONER GAINER: Is it possible that these strata or similar ones can be repeated - that you might find an edge of such a similar stratum appearing elsewhere in your sedimentary basin?

MR. HUME: It is not very probable; I would say that. There are not likely to be mineral deposits along the railroad on the western route to Pine Point. The main resources in that area are the oil and gas prospects.

COMMISSIONER GAINER: Would it be fair to

ask you a bit about the general geology of the Pre-Cambrian region we have been interested in?

MR. HUME: Well, I have some background. I have been away from it for two or three years now.

COMMISSIONER GAINER: Could you assess that in general terms and the region between Lake Athabasca and Slave Lake - that edge of the Pre-Cambrian?

MR. HUME: Well, I think all I can say about that is these areas, to the mining companies, and to the Government parties making geological maps which is the basis for the prospecting in most areas, are fairly readily accessible now. It is not difficult with a plane to get into most of these areas. The individual prospector hasn't a chance to do this, but there aren't any anymore - or, very few. Most of the prospecting is done by the major mining companies sending out parties which are well equipped with float planes, which are quite capable of not only moving the party from lake to lake, but they move all the camp and all the equipment and do it very efficiently and quickly. So that the area has been quite accessible to prospecting, and no mines have been found other than those at Uranium City. That doesn't preclude, as Mr. Jewitt said - and I agree with him- that mines may not be found in that area; but, I would say, as I said yesterday, that in my opinion at least, the mines in an area should come first before the building of a railroad through that area.

COMMISSIONER GAINER: I know this is the difficulty here, but I suppose what we are actually interested in, speaking of the Pre-Cambrian, the huge Pre-Cambrian region in general, and without going into details of the types of favourable anomalies, and so on, that may have to be present to be interesting, would that section of the Pre-Cambrian - the interlake section there - is there any reason why that would seem to be generally less interesting than other large areas of Pre-Cambrian, or any more interesting?

MR. HUME: Oh well, I think it is perhaps a little less interesting in that there is more granitic rock in that area than other parts of the Pre-Cambrian Shield. However, again, that does not preclude the finding of ore deposits in that area.

COMMISSIONER GAINER: But for a given area, so to speak, an area of favourable anomalies and so on, there is likely to be less, perhaps, than any other?

MR. HUME: That is kind of hard to answer too. My inclination would be to say"yes", but I am not too sure of myself.

COMMISSIONER GAINER: Perhaps we are pushing too far.

--- A short recess

THE CHAIRMAN: Mr. Feehan, none of us have any further questions.

MR. FEEHAN: I have a few, sir.

BY MR. FEEHAN:

Q. Mr. Hume, could you tell me roughly what the extent of prospecting for gas and oil has been west of the Peace River and in a line east of the Alberta boundary right up through to the Northwest Territories?

A. There have been a few wells drilled; not too many. I believe the Shell Oil Company drilled one at Steen River which would be just west of the Mackenzie Highway. There have been a few drilled in the Northwest Territories over towards Kakisa Lake. There are not many wells in there that have been drilled.

Q. Has there been any potential producer found, say, north of Manning and in between the Peace River and the B.C. boundary?

A. No, I do not think so. The big development is in the Boundary Lake area which is mostly in British Columbia. That is not too far north. I think it is on that map you have - Boundary Lake is shown. However, there has not been anything east of Boundary Lake actually in Alberta.

Q. Would it then be fair to say that up to the present time at least, after some exploration, there has been no find which would be adjacent to a proposed railway north of Grimshaw?

A. That is right; this is largely a matter of access - difficult access in that area.

Q. By that, do you mean - -

A. The roads have to be built or the exploration done in the wintertime.

Q. And will there be more extensive exploration?

A. I think that area is a good prospecting area. It certainly cannot be eliminated just on the basis of the amount of drilling that has been done up to the present time.

Q. If I gathered your statement correctly, you virtually wrote off the sedimentary basin as far as finding base metal ore bodies on a westerly route is concerned?

A. Yes.

Q. Now, you would not make the same observation regarding the easterly route?

A. No.

Q. If one of the important reasons for building a railway to the north is to discover base metal ore bodies then it would seem most reasonable that the east route should be followed - if that is one of the reasons?

A. Yes, if that is one of the reasons. When I was with the Department of Mines in Ottawa these things came up and we considered what would be the effect of building a railroad from Lynn Lake to the development in there north of Lake Athabasca. We concluded, and I think I still agree with our conclusions at that time, that the mines should come

first.

Q. Yes, I heard you say that before, and I know you are of that opinion, but, at the same time, you will agree that the westerly route provides no advantage to finding of base metals, and the easterly route provides some?

A. It provides access to an area that might possibly have mineral deposits.

Q. Is there any possibility, other than Pine Point, of finding base metal ore bodies in what we call the paleozoic rock?

A. I suppose it cannot altogether be dismissed, but I would agree with Mr. Jewitt that the probability is slight.

Q. But even if it is slight, it is better than finding it in the sedimentary?

A. I thought you meant - I misunderstood your question.

Q. I was referring to the paleozoic rock over which the east route would run?

A. There isn't very much chance of finding mineral deposits in that either.

Q. We have heard something of the exhaustion of the economic market for uranium?

A. Yes.

Q. Is there also a possible exhaustion of the physical product of uranium in the Uranium City area?

A. I couldn't answer that. I think the reserves of those mines are published. It is information that is available.

Q. I was wondering if you had it?

A. No, I haven't. I don't remember what the reserves of those mines are. They were quite substantial.

Q. But in the event that there was an exhaustion of the economic market, certainly the 100,000 tons which is being shipped to Uranium now would be depleted somewhat?

A. I really should not say anything about uranium prospects in there because I do not know, actually.

Q. You did mention the fact that the tar sands have been well known for some time. Would you care to venture a guess -- I suppose it is not a fair question -- as to how long it might be before they are made economically feasible?

A. Again, it is a matter of economics. We have an over-supply or an over-potential -- let me put it that way -- an over-potential of oil production in western Canada at the present time. Oil is seeking a market. Now, any production from the tar sands would only aggravate that problem at the present time, and, again, it gets to be a matter of economics. Is it cheaper to mine and process oil from the tar sands than it is to take it from oil wells? This surplus is not going to disappear in a few years, according to my friends in the oil industry who understand world economic conditions. They think this oil supply is going to last a considerable time, which, of course, is not helping the problem of marketing western Canadian oil. Whether or not markets will be found for the western Canadian oil I cannot say, but actually it has taken, I think, a good deal of the incentive out of developing the oil sands at the present time.

Q. And would you say that you see any reasonably near future incentive arising?

A. No.

COMMISSIONER GAINER: In that connection,

and going back further to something that came up in the evidence earlier about the production and marketing prospects for oil and gas -- I know I cannot expect a detailed answer here, but, generally, to what extent would the production and marketing of oil and gas necessarily have to be tied together? How independent would the whole process of producing and marketing natural gas be from the process of producing and marketing crude oil?

A. Gas fields that have no oil in them can be shut in and be kept as reserves as a conservation measure ---

COMMISSIONER GAINER: What proportion -- I know it is difficult, but is it a sizeable proportion of the total gas reserves, or is it likely to be?

A. No, the problem actually has not arisen in western Canada today.

COMMISSIONER GAINER: Is it likely to arise in the near future?

A. I would not think so because the applications that are being made for the export of gas from Alberta at the present time are very large. They are up in the trillions, even after what has been approved. This is over and beyond what has been approved. There are two applications pending right now before the Board in Calgary -- the Conservation Board in Calgary -- for further permits for the export of gas, so I do not

think the problem is going to arise in regard to the gas market. The gas market looks very favourable if the policy is to export gas, of course. It depends on the policy.

COMMISSIONER GAINER: Now, how important would the marketing of large quantities of gas be in terms of reducing the pressure and, therefore, making it more difficult to produce the oil?

A. No.

COMMISSIONER GAINER: It is not likely to be of ---

A. I do not think it is of any importance, really. There are certain oil fields that contain considerable volumes of gas. Now, in the interests of conservation it is much better to use that gas than to use other gas, other things being equal. An economic problem enters into that, of course, but on the basis of conservation everybody hates to see gas wasted, like we wasted it in the Turner Valley in the early days. I do not think that will ever occur again. So, these oil fields that are developed usually have considerable volumes of gas, and that gas is used first, if it is possible to use it,before gas will be taken out of a straight gas field.

COMMISSIONER GAINER: You are speaking now of gas in association with oil?

A. Yes.

COMMISSIONER GAINER: But this would not

necessarily apply to the gas caps?

A. The gas caps in the fields are kept capped until the oil is produced.

COMMISSIONER GAINER: And marketing that independently is not likely to raise the cost of extracting the oil significantly?

A. The gas in those gas caps would not be allowed to be produced until the oil is produced. Some would, but they would not be exploited to the extent that a gas field would be exploited where there is no oil present. The gas cap provides a certain amount of pressure, and the tendency would be to put more gas into that field to maintain the pressure.

COMMISSIONER GAINER: Then, in the event -- let us suppose that the market for gas opens up much more rapidly than that for oil. Will there be a problem of either attempting to accelerate the production of oil, or of just holding back on the marketing of gas?

A. I do not think that problem is likely to arise in Alberta because the gas prospects in the Foothills area are so good. I think it will be possible in Alberta, at this stage of our development, to produce all the gas that we need if the incentive is there -- in other words, if the market is there and the price is right.

COMMISSIONER GAINER: And that is mainly because there is so much gas found independently of oil?

A. That is right.

COMMISSIONER GAINER: Would this be true of northeastern British Columbia?

A. It could be partly true. We think the western areas -- that is, the Foothills areas -- are more likely to have gas than oil. Immediately you say that you think of Turner Valley which was an oil field, so there are exceptions, but as a whole I think that is true. The Foothills area would be a great potential for gas. Now, that does not mean that gas is not going to be found further eastward, but that gas is more likely to be associated with oil fields, and that has proven true in the Peace River area. Whether or not it is going to be maintained is questionable. The Boundary Lake field and the Beatton River field are all over towards the British Columbia-Alberta boundary, but the Blueberry field is over towards the western side in what we would consider the Foothills area, so you cannot draw and hard and fast rules in regard to this.

THE CHAIRMAN: We have nothing more.

MR. FEEHAN: I have one more question. I have been handed a list of some 40 wells which have been drilled in the northwest corner or section of Alberta, in the northerly Peace River area.

A. Yes.

Q. And it would appear that these wells were all drilled in 1957 and 1958, and all of them

were abandoned. I wonder if you would have a look at that list and tell us if it is accurate?

A. Yes. A number of these wells are stratographic tests -- that is, they are prospecting tests. They are not primarily drilled for oil and gas. The rest, I think I would agree, are wells that have been drilled for oil and gas and have been abandoned.

MR. FEEHAN: I wonder if that might be marked, sir, as an exhibit.

THE CHAIRMAN: Yes.

---EXHIBIT NO. 56A: List of oil and gas wells drilled in northerly Peace River area in 1957 and 1958, and subsequently abandoned.

MR. FEEHAN: I have nothing more, sir.

THE CHAIRMAN: Thank you very much, Dr. Hume. We will adjourn ---

MR. BALDWIN: Mr. Chairman, do you remember Mr. Harper from the Farmers' Union? He came back this morning and has waited here, and he has a very brief---

THE CHAIRMAN: I spoke to Mr. Harper during the last adjournment, and I gathered that it is just as convenient for him to give his evidence at two o'clock. After that we will have Mr. Denny's brief, and that is all we have for this afternoon?

THE SECRETARY: Yes.

THE CHAIRMAN: Then, we will adjourn now until two o'clock.

---Luncheon adjournment.

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

CORRIGENDA

VOLUME 10.

Page 1050, line 15: delete "a million dollars" and substitute "$15,000,000.00".

line 17: delete "12" and substitute "2".

Page 1052, line 20: delete "Upper Hills Lakes" and substitute "Hay Lakes".

VOLUME 11.

Page 1212, line 6: delete "rates" and substitute "mix".

--- On resuming at 2.40 p.m.

THE CHAIRMAN: Mr. Harper, you have some further information for us, haven't you?

MR. HARPER: I have a number of copies of the memorandum which we prepared on your request, sir, if you wish them.

THE CHAIRMAN: Yes; thank you very much. Can we have one copy filed as an exhibit?

--- EXHIBIT NO. 58: Memorandum

MR. HARPER: Is your wish that this be read, sir?

THE CHAIRMAN: Yes, please.

MR. HARPER: Memorandum to The Royal Commission enquiring into the relative merits of the possible routes: This memorandum was prepared at the request of your commission, to supply further information with regard to the following points.

1. The expected increase in the population of Canada during the next 20 years.

The Royal Commission on Canada's Economic Prospects, issued a Preliminary Report, dated December, 1956. This is the report in question, sir; I have a copy here.

On pages 17 and 18 of this Preliminary Report a series of tables may be found, estimating the population of Canada for each 5-year period from 1955

to 1980. These forecasts are based on the present percentage of natural increase, plus an annual immigration of 100,000 persons.

The final forecast, as shown on page 18, is an estimated population in 1980, of 27,535,000. This is an increase of 10.5 million or 62 per cent in the next 20 years.

2. The second point on which the Commission requested further specific information, is whether the potential agricultural land in the area north of Grimshaw will be needed for food production in the reasonably near future.

The following table shows the production, export, and home consumption of the Canadian Oat and Barley crops, - an average for 10 years, 1946 - 1956.

These figures, sir, are taken from the Dominion Bureau of Statistics.

Crop	Acreage	Production	Export	Home Consumption Bushels	% of Production
Oats	11,000,000	400 million bus's	Approx. 20 million	380 million	95%
Barley	8,000,000	200 million	Approx. 75 million	125 million	62%

THE CHAIRMAN: Do you know what increase has been in those two items during that period?

MR. HARPER: I doubt if I have it immediately. I believe the increase is not so startling as one might think.

THE CHAIRMAN: There is an increase.

MR. HARPER: There is an increase, but it is not actually tremendously significant.

From this it is apparent that about 85 per cent of our feed grains are used in Canada. From these grains are produced, in part, the milk, meat, eggs, butter, cheese, and other high protein foods which are necessary to a balanced healthful diet.

While some of these products are produced in excess of our home requirements, the majority of each is consumed in Canada.

For example - and this again is on a 10-year average - we consume 90 per cent of our beef, 95 per cent of our pork, 90 per cent of our eggs, over 90 per cent of our butter, and so on. Now, if our population is to increase 60 per cent in the next 20 years, it will be necessary for us to increase our production of coarse grains by at least 50 per cent, or over 300 million bushels, in order to meet our home requirements of animal food - and that is perhaps a slight misnomer; I mean requirements of human food from animal resources - at our present standard of living. (The Gordon Report forecasts an increased standard). This would require, at present yields, an additional 10 million acres of farm land. In addition, large areas will have to be returned to pasture and fodder crops to feed the cattle herds required for the necessary beef and dairy production.

It is apparent, therefore, that a substantial expansion of agriculture is required in Canada, - in everything but wheat.

One half of the potential, undeveloped farm land in Canada is in Alberta - a very large part of it being in the Peace River area. Where else, then, can our agricultural expansion take place? These figures I have, sir, I got from Dr. Bentley, Dean of Agriculture at the University, with whom I checked and who gave me the reference which I haven't checked, but I am sure that his figures are accurate.

A well-known Agricultural bulletin, entitled "Cropping for Profit and Permanence", by W. E. Bowser and J. Odynsky of the University of Alberta, states that there are over 6 million acres of potential Agricultural land in the Peace River area. If 3 million of this could be cropped to oats and barley each year, and yield 40 bushels per acre, which is above the national average, we would have an additional 120 million bushels, or a yearly increase of 20 per cent in these crops over the present yield. As already pointed out, we need an increase of 50 per cent, so we must, by better farming methods, substantially increase our grain yields within the next 20 years, in order to adequately fill our home market needs in foods of animal origin. That, of course, excludes wheat. I am speaking, of course, of the coarse grains which are used for animal feeds.

If Canada's population increases for the next

40 years at the same rate as is estimated by the Gordon Commission for the next 20 years, we in Canada will have to feed, by the end of this century, 45,000,000 people - and that, sir, is only 40 years away - over 2 1/2 times our present population. By that time world population will be approaching a critical stage, in terms of food supply. In support of this statement, may I refer to a book published in 1957 by Professor Harrison Scott Brown, Division of Geological Sciences, California Institute of Technology, entitled, "The Next Hundred Years".

As an illustration of the seriousness of the food problem this book discusses the possibility of meeting future food needs, by the use of sea water to irrigate desert areas, production of algae and other sea life as a source of human food, and other theories which were once regarded as fantastic, but now are taking on the aspect of necessity.

In our opinion it would be a grave mistake, and could be disastrous, to view the present surplus of cereal grains in the Western World as anything but a temporary situation, which could change within a period of a few years, and will undoubtedly change within the lifetime of most of us here. It is, therefore, our contention that, in planning a long-term investment, such as a railway, the Agricultural possibilities of the surrounding territory is, even within the next 50 years, a matter of prime importance

to the welfare of Canada.

3. Another matter on which the Commission asked a number of questions, during the discussion of our main brief, had to do with the potential freight earnings from grain hauled on the proposed rail extension, north of Grimshaw. Let me correct that slightly. I should have said originating on the proposed extension.

The export rate on grain shipped from Grimshaw is at present 34 cents per 100 pounds to Fort William, 26 cents for wheat to Vancouver, and 34 cents for coarse grain to Vancouver. A freight car when loaded carries 50 tons, or 100,000 pounds of grain. The freight charges on one car from Grimshaw to Vancouver for export are, therefore, $300.00. Referring again to our main brief, if 4,000 cars of grain were shipped per year from north of Grimshaw for export, the total freight bill would be $1,200,000.00. Grain shipped from Grimshaw to Vancouver for domestic use is subject to a freight charge of 81 cents, or $800.00 per car. It is, therefore, evident that very substantial earnings will accrue to a railway when the agricultural possibility of this area is fully developed.

We trust that this is the information required, and will be pleased to be of further assistance.

THE CHAIRMAN: Thank you very much.

Mr. Feehan, have you any questions you would like to ask?

MR. FEEHAN: I haven't discussed this with

Mr. Bishop as yet, but I will.

MR. BALDWIN: May I say, while we are waiting, that we were in touch with the United Grain Growers - you will remember Mr. Edworthy - in Calgary, and I think they have had something of a catastrophe down at Fort William which has engaged his attention, but he said that he would turn his immediate attention to this and try and get a letter here by Tuesday or Wednesday next week.

THE CHAIRMAN: Would you try to keep in touch with Mr. Edworthy yourself?

MR. BALDWIN: Yes, I will do that.

MR. HARPER: There is one other point which I should perhaps have intimated in this. The Commission inquired the other day about the subsidies paid to wheat growers in other countries. I have some of those figures here. These are guaranteed prices to producers of wheat in each of these countries. It isn't exactly in the form of a subsidy. These are the guaranteed prices: Switzerland, $4.15 per bushel; Finland, $3.78. If you wish, sir, you can take this table. These figures are their prices translated into Canadian dollars. Norway, $3.31; Italy, $2.93; Germany, $2.78; Japan, $2.67; Belgium, $2.48; Ireland, $2.13; South Africa, $2.18; the United Kingdom, $2.03, and the Netherlands, $2.01. France - now, this figure is for the year 1956; I am sorry I haven't it more up to date, but it is substantially the same. I think it has gone up a little. France is $2.64, and the

Argentine that year was $1.18. Significantly, that was the year Argentine had to import wheat. They are now back in the export business and I know this price has increased and I wasn't able to get a hold of it.

THE CHAIRMAN: The Argentine imported wheat?

MR. HARPER: Yes, they did; they were right out of the export business a few years ago.

THE CHAIRMAN: What about the United States?

MR. HARPER: I haven't a figure here. I think it is now - I am speaking from memory - $2.74. It was around $2.96. I am not exactly sure of that figure, sir.

In comparison, the Canadian farmer has been receiving $1.40 at the lakehead. This is not a guaranteed price; it is simply what the wheat Board has been able to get on the market. We are assured this year again of a $1.40, and if the Board can squeeze a little more out of the world market, they will, otherwise they won't.

THE CHAIRMAN: If you could file a copy of that as an exhibit we would be glad to have it.

MR. HARPER: Yes, I would be very glad to give it to you, sir. These figures for Canada, France and the Argentine -- I just have them as a note here, but the others are given on page 7 of this document.

---EXHIBIT NO. 58: Document entitled "Submission by the Western Farmers' Delegation to the Prime Minister and members of the Government in support of deficiency payments on wheat, oats and barley."

BY MR. FEEHAN:

Q. Referring to page 2 of your supplementary brief, you state that an increase of 50 per cent would be required in the production of coarse grain over the next twenty years. Now, we have had evidence on a previous day that that could be very easily done; that a substantial increase could be made by better farming and irrigation and fertilization methods in the already existing areas under cultivation in western Canada. What would you say to that?

A. I would say first, as is indicated further on in the brief, that it will have to be done in that way because I doubt if we have the available land to meet the increase otherwise. That is mentioned specifically in one paragraph on page 2. We can, of course, continue, we hope, to improve agriculture by better farming methods, by better fertilizers, by improved varieties, and so on, and

so lift yields to a degree, but to lift them by those methods alone in twenty years I would say, as a practical agriculturalist, it is quite impossible. A 50 per cent increase is a tremendous increase in agriculture.

Q. You would not like to say with the existing areas and with improved farming methods we can produce 50 per cent more?

A. I would seriously doubt it; I would seriously doubt it within the foreseeable future unless something very startling comes up in the way of new techniques. It does not seem to be a practical thing to expect.

Q. Do you not think that some of this problem could be solved by a larger production of coarse grains rather than the present over-production of wheat which we have at the present time?

A. I rather expected that question. I have a little supplemental information here which I worked out only this morning. This has to do with a broadcast which I made, and if I may I will just quote two paragraphs from it. I think it will answer the question most effectively:

"And here is an interesting fact -- we are using about 160 million bushels of wheat in Canada every year right now. If our population increases by two-thirds by 1980 we will then need about 265 million bushels to feed our own people. Our wheat

production over the past five years has averaged just about 400 million bushels per year. Take 265 away from that, and we may be down to less than 150 million bushels for export, which is about half of our present exports."

THE CHAIRMAN: In the last five years how much have we produced, Mr. Harper?

A. Production has averaged a little in excess of 400 million bushels, so that we are rapidly climbing up on our tremendous wheat volume, and if we are going to have to remove a portion of this land from wheat production to make up these acres for oats and barley production plus adding a tremendous amount for pasture and fodder crops -- we have to get them from somewhere for our dairy herds -- then our wheat acreage suffers in that process, and it seems to me it is almost bound to. Then, of course, our wheat surplus is going to go down still more.

THE CHAIRMAN: The surplus over domestic consumption has been about 240 million bushels a year, has it?

A. It exceeded that in about the first five years of the 1950's. We had a tremendously heavy production during that period due largely to exceptional weather conditions over western Canada -- we had the best years moisture-wise -- and we went up to nearly 700 million bushels in one year.

THE CHAIRMAN: Seven hundred million

bushels of total production?

A. Yes, that was total production, and we have been chewing at that surplus a little bit in the last few years. It came down, as you will recall, by 93 million bushels last year, or something of that sort, so we had actually pulled down our surplus in the last year or so.

THE CHAIRMAN: What is our average export per year?

A. Last year it was 293 million bushels. The year before it was 302 million bushels. It has been running around 300 million bushels in the last three years.

THE CHAIRMAN: So that over the past few years actually we have not been producing as much wheat as we wanted to?

A. We have actually -- yes, that is correct. We have actually pulled down our surplus by about 93 million bushels from the accumulated surplus of the year before. Our surplus is considerably down this year from last.

MR. FEEHAN: I have just one more question, Mr. Harper. From the tenor of your brief you would seem to indicate there is some urgency about bringing this area into production. Would you like to go on record as saying that there was this urgency, or not?

A. I think it is somewhat true that there is, within the next twenty or thirty years, an urgency. To give this some further support I phoned Dr. Bentley, the Dean of Agriculture, yesterday afternoon while I

was preparing this information. In fact I read it to him as it is now, and he said: "There is not a word I would quarrel with in that. I think the ideas are absolutely correct." Just as an indication which may show which way the ball is rolling, every ten days the world's population increases by a number of people equal to the total population of the Province of Alberta. That is every ten days, and it is a statistical fact. The population increases geometrically, obviously, and our world population is increasing at a fantastic rate. I have some further figures on that if the Commission is concerned with them. The rate of world increase is approximately 2 per cent at the present time -- nearly 2 per cent.

THE CHAIRMAN: Two per cent a year, I suppose?

A. Yes, sir. This could be filed, my lord, if you so desire. This was also prepared by Dr.Bentley and it shows that at the time of Christ the world's population was 250 million, and it took two thousand years to double. In 1620, the time of the Pilgrim Fathers, the world's population was 500 million, and it took one thousand six hundred years to double at the rate it was going at at that time. This rate changes as we go on. In 1840 we had about one thousand million, and it was taking at that rate of increase 220 years to double, but by 1940 the population had in effect doubled because,

as I say, of this geometrical progression, and we had a population of 2000 million then, and the time of doubling at that rate would have been about one hundred years. In 1980 we will have 4000 million people, and the rate of doubling -- it will double in forty years at the rate then. At about the year 2010 -- fifty years from now, my lord -- we will have 8000 million people. They will be doubling at the rate of every thirty years, and in the year 2500 we will have one person on every square yard of all the world's land surface including the ice caps.

COMMISSIONER GAINER: Let us try to get at the relevance of all this. I suppose it would be true to say that in some countries the pressure of population has already been very great compared to our situation. At the same time, we have been talking about surpluses, and so on, or over-production. How would the situation change, even from today and in the future if we accept, as we do, these predictions of population change?

A. Well, the fact would simply be that we could not possibly feed them.

COMMISSIONER GAINER: Are we now?

A. No, we are not feeding them well now, sir, no. Many people who are in a position to know say if we can distribute all of our human food throughout the world on an equal basis we still would not be able to provide all the people of the

world with an adequate diet. In other words, over-production is centered in the western world where the population is comparatively small. I think it is said that two-thirds of the world's people go to bed hungry every night.

COMMISSIONER GAINER: I would be willing to accept this in the event that a new area of agricultural land is opened up in Canada or an expansion takes place in an existing area. Having in mind this growth of population the world over, and so on, how will this alter the distribution problem?

A. If I understand your question correctly, sir, you are asking whether the opening up of other agricultural lands in Canada can substantially affect this problem of producing enough food for this number of people?

COMMISSIONER GAINER: What I am asking -- even today, let alone more population in the future, there may be a certain problem of distribution. Would the routing of this railroad, for instance, and the agricultural development that would follow, necessarily alter this distribution problem? Would it help to feed some nations that are short of food production, even today?

A. Well, I would say this, sir, that we do export substantially from Canada foodstuffs, particularly wheat and barley, and this is presumably badly needed by the rest of the world, and that is why

they buy here. If we are going to use more and more of this at home and, therefore, have less and less to send to other areas, then certainly we can use all the agricultural land we have to keep up the level of our exports to these other countries. Aside from the balance of trade proposition which, of course, would be valuable, if our population increases we have to bring in certain items from other countries, and presumably agricultural products could serve the balance of trade. The need will certainly be there for all we can produce in the very near future. The market will be there, and the need will be there. We do not think there is any question of that. This is a rather startling departure from the idea of agricultural surpluses with which we have been faced in this country for some time, but I again refer to one of the paragraphs in this memorandum which says that we must not view this as a long-term problem. This is a very short-term problem -- this problem of surplus -- and it can change very rapidly, and it will.

THE CHAIRMAN: Mr. Harper, what is the present surplus of wheat in Canada?

A. Let me see -- the visible supplies now -- I am sorry; I cannot tell you exactly, sir, but it is around 400 million bushels, or about one year's crop.

THE CHAIRMAN: It is somewhere reasonably

close to that?

A. Yes.

THE CHAIRMAN: Would you say somewhere between 300 million and 500 million bushels?

A. Yes, somewhere in that neighbourhood. It is about a year's crop that we have ahead at the moment, I think.

---EXHIBIT NO. 59: Document entitled "Population Problems".

THE CHAIRMAN: I think that is all, Mr. Harper. Thank you very much.

SUBMISSION OF

DENNEY LOGGING COMPANY LIMITED

Appearances:

Mr. R. B. Denney, Jr. President

MR. DENNEY: Mr. Chairman, as you know our company has submitted a brief for your consideration. I will read the brief and then answer any questions you may have.

THE CHAIRMAN: If you have anything that you would like to add to it then you may do so.

MR. DENNEY: Yes, I will do that, because I have some comments on testimony that was given yesterday, and probably some other matters will develop.

Mr. Chairman and members of the Royal Commission: our firm, Denney Logging Company Limited, in 1956 obtained a timber lease on 138,000 acres of forest land in Wood Buffalo National Park, adjacent to the Peace River and an additional 16,600 acres in 1957. These leases contain over one billion board feet of mature white spruce and poplar. It represents one of the finest stands of white spruce in northern Alberta. Volumes of merchantable timber per acre run up to 40,000 board feet and average near 20,000 board feet per acre.

I might say that the averages are based on the area that is timber. There are areas within the timber limits that are not timbered, and if all the land was considered, the bare land as well as the timbered land, the average would be less than 20,000 feet board feet per acre, and would be somewhere in the neighbourhood of 15,000 board feet per acre. But, in the timbered areas the average would be approximately 20,000 board feet per acre.

Our firm has constructed a sawmill, a power plant, and a planing mill which with related equipment and facilities represents an investment of approximately 2½ million dollars. Our plant is located on the Slave River, one mile south of Fort Fitzgerald, Alberta.

I have here a few pictures of the plant which -- they are not mine, but are Dr. Henderson's from Ottawa, but I would be happy to let you see them if you are interested. If you wish some for your files then I would be happy to get some for you.

THE CHAIRMAN: Would anybody else like to see these pictures? (Photographs handed to counsel present).

MR. DENNEY: We are presently producing 80,000 board feet of lumber per shift and are planning to add additional equipment to our plant to increase this production by 45,000 board feet per shift to allow a total production of 125,000 board feet per shift.

I might say that in this 80,000 board feet production we have a head rigger in the saw mill and a gang mill, and about a month ago we had the misfortune of losing the gang mill. It was damaged in the process of running it, and it is being replaced by a new gang mill which is in Fort Fitzgerald at the present time. At the time this was written it was about 40,000 board feet, and it will be back up to about 80,000 board feet when it is installed.

THE CHAIRMAN: What do you call a shift?

MR. DENNEY: An 8-hour shift.

THE CHAIRMAN: And you are on three shifts?

MR. DENNEY: No, we are running a single shift at the time. The anticipated method which we are going to use, starting next season, will be an operation of a double shift for seven months and a single shift for five months. If we don't run the year round, we will probably run about seven to eight months double shift and shut down during the winter-time, but it is our hope to run the mill on a year-round basis. We hope that will work out. Some of the economic factors will have to be worked out.

When in full operation, we will employ between 100 to 125 men in the mill and approximately 80 men in the woods with an annual payroll of approximately $900,000. Our maximum yearly production will run to 30 million board feet with present facilities and with the proposed additional equipment installed production could be increased to between 40 and 50 million board feet per year.

In relation to this I might say the saw mill is already constructed to permit installation of additional equipment to achieve this capacity. The building has been built on an overall finished basis, and the space is in the mill for these other facilities which I am speaking of here. The power plant which provides the power - we are actually using less than half of our power at the time, and the plant has enough capacity to take care of future dry kilns and a future plywood plant.

THE CHAIRMAN: How much did you produce in the year 1958?

MR. DENNEY: In 1958 we ran on a test run basis and it was about 1,800,000 board feet.

THE CHAIRMAN: That was the total?

MR. DENNEY: Yes.

THE CHAIRMAN: And how much in 1959 to date?

MR. DENNEY: After we completed the 1958 season we shut down for the winter, and in the Spring we built additions on the mill and made refinements

which had to be done, and we started operations this year just before the 1st of July and have now run during July, August, September and will run through October, and our production this year will be between 4 million and 5 million board feet.

THE CHAIRMAN: You started near the end of June?

MR. DENNEY: Yes - say, July the 1st.

THE CHAIRMAN: How much was it in July?

MR. DENNEY: In July the production was approximately 1 million feet. In fact, it has been approximately 1 million to 1,250,000 board feet per month since then.

THE CHAIRMAN: Starting with July?

MR. DENNEY: Yes, that is right. Production would have been a little greater, but it is a brand new mill and we have had some shutdowns for adjustment in the power house and things like that.

There are, however, transportation difficulties now associated with the present operation that may limit the possible production of our plant. These transportation difficulties would be overcome by the construction of a railway to the vicinity of Fort Smith. As the situation now stands, we are faced with making all our shipments during a period of less than five months of the year when the existing river transport is in operation. It is necessary during this five-month period to bring in all our supplies and make all out-

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

going shipments. The lack of good transportation increases our operating costs and creates a problem in servicing and maintaining personnel. The short period of transportation now available to us requires the building up during the winter months of large and costly inventories of logs, lumber and supplies. Shipments from inventory start after water transport begins in the spring and the lumber arrives on the world markets later in the construction season than lumber produced in areas adjacent to year-round transport. This works a decided disadvantage on our company in marketing. There is also the added disadvantage in building up market outlets due to our inability to supply on a "quick order" basis throughat the whole 12 months of the year.

I might explain that a little further. I think you can really understand the problem as far as getting the lumber on the Canadian and world markets early in the Spring is concerned, since normally construction is slack during the winter, and eastern buyers normally start buying in April, or even late in March in cases - particularly in the eastern United States - and that lumber goes into the construction of houses and whatever else it is being used for in the Spring. Because of the fact that transportation up there - the present water transportation - does not open up until near the middle of May, by the time our lumber for the outside markets arrives at Waterways it doesn't get to the world markets - the very first

shipments - until, at the very best, around the 1st of June, and actually there is a good two months of the very best of the market we miss because of this situation. Also the fact that our lumber does not hit the markets until late makes it difficult for us to make attractive contracts with eastern buyers, because they are desirous of getting their lumber when they need it most - early in the Spring.

THE CHAIRMAN: Did you calculate these problems when you opened up up there?

MR. DENNEY: Yes, we did. We have run into a lot more problems than we expected due largely to the transportation system and things that are affected by transportation systems, such as supply and movement of our products, and the orderly flow of products. It is hard to achieve an orderly flow of products in the north because of the transportation situation.

Approximately 30 per cent of our tonnage, we estimate, will move north by the present water route or north by rail via Pine Point should a railway be constructed through Waterways-Fort Smith-Pine Point. The remaining tonnage of production will be shipped South to domestic and world markets. This southern movement would amount to approximately 20,000 tons per year of rail traffic from our mill alone, based on the present rate of production.

That is, contemplating the 30 million feet per year.

With the excellent stands of timber in our berths and the "Spokane" rates for lumber haul, our operation will be competitive with other Western Canadian Producers in the Eastern Canadian and Eastern United States markets. The present transportation rate for the short season of waterhaul, is $8.00 per ton or $7.30 per thousand board feet from Fort Fitzgerald to Waterways, in addition to which there is the cost of additional handling from barge to railway cars at Waterways. If the railway is constructed via Fort Smith by virtue of the Spokane rates we should be able to effect a saving of $7.00 per thousand board feet and put us in a more competitive position in the markets of Eastern Canada and the Eastern United States.

In addition to the above saw mill operation, we have presently under consideration, if rail transport is provided to the Fort Smith area, the construction of a plywood plant. This plywood plant will employ approximately 100 to 125 men. Payroll per year would amount to 500,000 dollars or more. This plywood plant would provide potential traffic for the railroad for southbound traffic and a small amount for northbound movements.

We have firsthand knowledge of the timber resources of the territory adjacent to Fort Smith and are of the opinion that there is a tremendous potential there for the forestry industry. The one-billion board feet of mature timber on our berth is

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

adequate to supply our mill requirements for many years and more timber will become mature each year. This involves a revenue to the Government in stumpage alone over this period of several million dollars, and should an access railway be built to Fort Smith, this stumpage rate may be increased to mean several million additional dollars to the government in revenue.

But our contract with the federal government permits the cutting of mature and over-mature and damaged timber, and it is the opinion of the federal Forestry Department on their estimate of this timber that there is approximately a billion feet on our two berths of white spruce and northern jackpine. I have a letter here from Dr. Harrison. Mr. Grimble discussed this matter with Dr. Harrison -- at least had correspondence with him on it -- and I was talking to Mr. Grimble about it and he showed me this letter which bears out my ideas on this. I refer to this letter of September 24th, 1959, from Ottawa, and it is addressed to Mr. Grimble. It says:

"In reply to your night letter received September 23rd, a copy of the publication "Forest Conditions on the Lower Peace River" has been mailed to you.

"Our surveys in Wood Buffalo Park were at first of a reconnaissance nature to provide rough estimates of stand volumes, age classes and productive forest areas. Latterly we have been making management surveys in the areas where operations are going on, or are contemplated, along the Peace River. Results are nearing completion but are not available yet for publication.

"From the reconnaissance surveys we estimate an approximate volume of 1.8 billion fbm

of softwood and 500 million fbm of hardwood saw-log material in the Wood Buffalo Park. Of this quantity 1.17 billion fbm of softwood and all the hardwood lies along the Peace river alone.

"The question of maturity applies at this time mainly to the valuable stands of timber along the Peace river, where approximately 60 per cent of the forest is mature."

THE CHAIRMAN: That is along the river?

MR. DENNEY: Yes; and, as a matter of fact, that is where, I would say, 90 per cent to 95 per cent of the significant stands exist. They are along and in close proximity to the Peace River.

COMMISSIONER GAINER: How do they distinguish between the mature and over-mature?

MR. DENNEY: The Forestry Department says if timber has attained an age of 160 years or more.

COMMISSIONER GAINER: Everywhere?

MR. DENNEY: Well, in this particular Peace River area.

COMMISSIONER GAINER: Can you say where you would make some adjustments on your lumber?

MR. DENNEY: The general character of the timber as it reaches maturity, and somewhere in the vicinity of that point a defect starts to enter into it, such as rot and insects and other diseases, and it starts to deteriorate. As a matter of fact, I have one picture here of what

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

happens in this timber, and we find it quite prevalent in certain areas. Here is a white spruce which shows rot starting to eat into the butt of it.

COMMISSIONER GAINER: You are cutting in certain of those regions now?

MR. DENNEY: Yes, that is correct.

COMMISSIONER GAINER: And you are cutting mature and over-mature?

MR. DENNEY: Yes. Our timber contract requires that we cut under a Forestry plan formulated under the supervision of the Resident Forester at Fort Smith, and before we can start we have to submit this plan to the forester in charge and he either approves it or disapproves it.

COMMISSIONER GAINER: Do you make any adjustment for quality?

MR. DENNEY: No, not as far as the price of the stumpage is concerned. The normal method is to scale the logs and make deductions for rot that occurs. It is done where the logs are scaled, and the scaling is done under the supervision of the Forestry Department. The Forestry Department checks the gross scale of each individual tree and then deducts 10 per cent.

COMMISSIONER GAINER: So that this factor would enter into your operation?

MR. DENNEY: It is taken care of in the scale of logs. That is the normal thing in logging

everywhere.

COMMISSIONER GAINER: You have no idea how much of the logs are classified defective due to mature and over-mature?

MR. DENNEY: That is right. We naturally make records of that, and those records will mean something in the next year or two.

I may say another thing; I don't know that it has been considered here yet. As you probably know, I have only attended yesterday's hearing and then to-day's, but I didn't hear it emphasized at all yesterday, and that is the money that is involved to the federal government in harvesting these stands of timber that would become available were the railroad built on this route. The stumpage is $3.75 for a thousand board feet, and the contract contemplates a development period of five years, with a provision that the stumpage rate would be increased should conditions change in that period, and that would result in a very substantial additional revenue to the federal government. I would say 95 per cent of the timber that is in the park would be economically feasible to log were this railroad put in this way, making this footage of timber available for sale, which would result in a lot of money. A billion feet of timber is $3,375,000 for each billion board feet. The character of the timber stands in the Peace River are such that if this railroad were built in this eastern route about 95 per cent of this

timber would be available to be hauled out and manufactured, because this timber in these big concentrations along the Peace River, along the Birch River and in the Foothills of the Birch Hills and along the Athabasca River -- in all of these areas it would be economically feasible to manufacture this timber if this railroad were put in this way. I am speaking also of the timber that is on the Athabasca river in Alberta. The eastern route goes parallel to the river and skirts the Birch Hills, and all that timber along the Athabasca river could easily be logged to the railroad.

THE CHAIRMAN: You say 95 per cent could be practical. Do you mean at present-day prices for lumber?

MR. DENNEY: Yes.

THE CHAIRMAN: At present-day prices for lumber how much of it would be cut?

MR. DENNEY: There is certainly none of the timber in the Birch area would be cut. I have seen figures on it, and it is somewhere between 250 million and 300 million feet of timber. It is impossible to get it out.

THE CHAIRMAN: Would a railway help you get any timber out of the Athabasca delta?

MR. DENNEY: Definitely, because it could all be logged over frozen ground to the railroad; it would only be a short distance. You can see on the

map where the Athabasca river comes up into the country, where the railroad would be a comparatively short haul.

THE CHAIRMAN: You thought 95 per cent of the timber could be harvested?

MR. DENNEY: Yes.

THE CHAIRMAN: Which area are you referring to?

MR. DENNEY: I am referring to the timber in Wood Buffalo Park.

THE CHAIRMAN: What would you say would be the percentage that would be harvested at present-day prices?

MR. DENNEY: Under present-day prices I would say that the timber along the Peace river which is now under contract is the only timber that would be of any significance. There is approximately a billion four hundred million to a billion and a half, under present prices. I think the government figures show about a billion eight hundred million. There is the addition of the Province of Alberta which I have no figures on; it would be substantial.

I might say in relation to these figures which I have just given you in relation towhat would be harvested at the present time that these operations at the present time are precarious because of the problems involved. Our company has no intention of pulling out of there at the present time, but I will say this, that we are up against stiff problems, all of which would be corrected by the railroad.

COMMISSIONER THOMSON: Did you miscue on your calculations when you went in? Were you under any impression that there would be a railroad coming in?

MR. DENNEY: We understood at the time that there was a very good likelihood that the railroad would come in, but the fact is that we have run into problems that we didn't contemplate, such as labour. Labour is a big problem, supplies are a big problem; even moving in the equipment. The first thing we did to get in there was to run a road from Fort Smith to Hay River; we opened that up ourselves.

COMMISSIONER THOMSON: You knew all about that when you went in?

MR. DENNEY: Yes.

COMMISSIONER THOMSON: But you were pretty strongly under the impression that a railroad would go in which would iron a lot of that out?

MR. DENNEY: Yes, plus the fact that I doubt very much if any southerner can look at any maps and even take any trips into the north and realize all the problems that you are up against.

THE CHAIRMAN: How did you come to understand that there would be a railway going in?

MR. DENNEY: Well, we heard a lot of talk.

THE CHAIRMAN: Was that from any responsible persons?

MR. DENNEY: I wouldn't care to quote any

names at the present time.

COMMISSIONER THOMSON: If a railroad doesn't go in there there is a chance that it is going to be a 50-50 operation?

MR. DENNEY: I said that under present market prices the operations in there are marginal, and, as I said, our company has no intention of pulling out of there, but at the same time there may be periods of shut-down when we can't market lumber and we may have to wait until market conditions improve.

COMMISSIONER THOMSON: Would a railway improve your operations for north-going lumber?

MR. DENNEY: No.

COMMISSIONER THOMSON: Do you ship much lumber north?

MR. DENNEY: We have shipped all of our production north this year.

COMMISSIONER THOMSON: Is that Yellowknife?

MR. DENNEY: The bulk of it has gone to Yellowknife, although there have been shipments to other points.

COMMISSIONER GAINER: In your freight calculations, if a railroad goes in, you have assumed moving it for 30 cents a thousand, reduced by $7.

MR. DENNEY: It was somewhere around that, or possibly a dollar. I have no figures on the railroad, and I don't think any figures are available, to my knowledge.

COMMISSIONER GAINER: I just wondered how that calculation is made. We don't know yet; we hope to at some stage. What I am asking you is what if it doesn't reduce it by $7?

MR. DENNEY: Most of our lumber shipped out of there would be on the long-haul to eastern Canada and eastern United States, and 300 miles additionally on the long haul -- I know of no place where it is very much; the difference in rate is a few cents a thousand. If it was a short haul it would be different, like shipping it into Edmonton.

COMMISSIONER GAINER: Are you sure that would be the case in the absence of a competitive carrier?

MR. DENNEY: I have assumed that there would be advantages in that situation, and there would be certainly advantages in the marketing and supplies into the mill.

THE CHAIRMAN: Supposing it goes in and afterwards you find thatyour rate is going to be the same, but now you can do it all the year round, would this be a reasonable ---

MR. DENNEY: It would be a very material help.

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

COMMISSIONER GAINER: You would have no complaints about that?

MR. DENNEY: I would think that the rate is higher than it should be, but it would certainly materially improve the situation.

COMMISSIONER GAINER: You think this would be an improvement even if the same costs are there? It would be an improvement just to have the year-round service?

MR. DENNEY: There is no question about that.

COMMISSIONER GAINER: I know you cannot get down to these things exactly, but I suppose it would even go beyond that sum, and it might be worthwhile to pay some amount extra?

MR. DENNEY: Let us put it this way - - this is a hypothetical case, as you mentioned; right now if we run the year round we are faced with piling up large inventories of logs during the towing season and carrying those logs through the winter and using them as we need them. At the time we are doing this the lumber that is being produced is going into the stock-piles, and we are forced to carry large inventories of lumber, and as you know the costs of carrying those inventories is very material. There is not only the interest on the money, but you have insurance and you have the extra handling, and all the other things which are involved.

COMMISSIONER GAINER: Is yours kiln dried?

MR. DENNEY: No, we do not kiln dry.

COMMISSIONER DENNEY: Do you normally stock-pile a certain amount for drying, and is not the winter a good time to do this?

MR. DENNEY: So far as drying is concerned it does not take seven months to dry the lumber. 30 or 40 days on the sticks is sufficient to dry it.

COMMISSIONER GAINER: In any event, this could not be integrated with a winter stock-piling and drying operation because you cannot get it out soon enough in the Spring?

MR. DENNEY: That is correct, yes.

COMMISSIONER GAINER: Have there been any adjustments on those stumpage rates?

MR. DENNEY: Yes, all of the operators had their stumpage rates adjusted as of February 1st of this year.

COMMISSIONER GAINER: To the $3.75 figure?

MR. DENNEY: Yes.

COMMISSIONER GAINER: And before it was what? Was it higher?

MR. DENNEY: Yes, higher.

COMMISSIONER GAINER: It was higher before that?

MR. DENNEY: Yes.

COMMISSIONER GAINER: How did that come about? Was that a matter of negotiation?

MR. DENNEY: It was a matter of negotiation and economic necessity.

THE CHAIRMAN: What had the rates been?

MR. DENNEY: On our berth 408 the rate has been $6.00.

THE CHAIRMAN: So it went down from $6.00 to $3.75.

MR. DENNEY: Yes, and berth 378 was $9.45.

COMMISSIONER GAINER: It was originally $9.45?

MR. DENNEY: Yes.

THE CHAIRMAN: And then it was reduced to $6.00?

MR. DENNEY: No, to $3.75. All berths in the parks - - everybody else who purchases timber in the park pays the same rate.

THE CHAIRMAN: So some of your rates were reduced from $6.00 to $3.75, and other rates were reduced from $9.45 to $3.75?

MR. DENNEY: That is correct, yes.

COMMISSIONER THOMSON: There is one more question that bothers me a little. As a Commission we are interested in collecting information, and we run up against these figures that cannot be divulged and names that cannot be divulged. Why is it not possible to let us know who intimated there would be a railway?

MR. DENNEY: There was considerable dis-

cussion about it.

COMMISSIONER THOMSON: You cannot say even by whom?

MR. DENNEY: As a matter of fact I do not recall specifically who discussed it. There were a number of articles in the paper from time to time, and there was talking at Fort Smith about it.

COMMISSIONER THOMSON: Did they have any more information about it than the man on the street, say? There must have been some.

MR. DENNEY: One of the men that discussed it with us was Mr. Essex who was park superintendent at the time.

COMMISSIONER THOMSON: He was park superintendent for Northern Affairs?

MR. DENNEY: Yes.

COMMISSIONER THOMSON: From where would he get the information?

MR. DENNEY: That is something I do not know.

COMMISSIONER THOMSON: Did he intimate that there might be a railroad?

MR. DENNEY: Yes, he intimated that there might be a railroad.

COMMISSIONER GAINER: Would it seem to be the case that if your operation is to stand then you will not be operating at anything like full capacity on the basis of the seven month period?

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

MR. DENNEY: Yes, we have left space in the sawmill for additional equipment which fits right in with the production that we are doing right now, and which will increase the sawmill up to where it could manufacture 40 million to 50 million feet per year.

COMMISSIONER GAINER: Was it your intention originally to cut 40 million to 50 million feet a year and ship it by water?

MR. DENNEY: No, it was not. We based our plans on the figure of 30 million feet a year at the time we were doing our figuring on the economics of the situation, but we knew that these stands of timber were mature and should be manufactured fairly rapidly, and at the time we built our building we felt it was the sensible thing to do to build the building large enough so that we would be able to put in the additional capacity, because increasing the size of the building at the time did not mean very much extra money, but if at a later time you wanted to add to the capacity you are faced with the problem of trying to get the space which we otherwise would not have had.

COMMISSIONER GAINER: Let us get this clear. You planned it on the basis of a 30 million board feet operation.

MR. DENNEY: Yes.

COMMISSIONER GAINER: And you planned to ship by water and rail.

MR. DENNEY: Yes.

COMMISSIONER GAINER: On a seven months basis, or a seven months operation?

MR. DENNEY: Yes, plus the single shift operation in the wintertime if we could swing it for carrying our inventories.

COMMISSIONER GAINER: And then at the time the building was constructed you built in a little excess capacity?

MR. DENNEY: We built in extra room in the building.

COMMISSIONER GAINER: More or less contingent upon the railway coming in?

MR. DENNEY: That is correct.

COMMISSIONER GAINER: Or was it just general expansion?

MR. DENNEY: No, by the time we got down to where we could construct a building - - we had a lot of discussions. You see, we built the mill in 1957 and early 1958, and by that time there was a lot of talk of the railroad, as you know.

COMMISSIONER THOMSON: But did you not read a Northern Affairs brief which indicated a railroad from Grimshaw at about that time? Did not the Gordon Commission have a plan for some railroad going in from Grimshaw?

MR. DENNEY: Frankly, I read that Gordon Commission Report two or two and a half years ago, and

I just do not remember what it said at that time.

COMMISSIONER THOMSON: How much money did you spend on that plant? It must have meant a goodly sum. You must have had some good assurance you were going to get a railway?

MR. DENNEY: So far as the major capacity -

COMMISSIONER THOMSON: No, I mean just the whole - - you have put in a pretty big establishment.

MR. DENNEY: Yes, we have a big plant. We have just slightly less than $2\frac{1}{2}$ million invested there, and that includes several houses that the company has built at Fort Smith, and trailer houses and tug boats, and cats and shovels, and all the equipment that goes with it - - the mill site and pond, and power plant and planing mill, and so on.

COMMISSIONER THOMSON: If the railroad does not go in do you feel that is over-built, and that you will not need that?

MR. DENNEY: I will say this, that I believe in the next few years there is going to be a certain amount of continued inflation, and I believe that eventually it is going to work out real well.

COMMISSIONER THOMSON: Even if you do not get the railroad?

MR. DENNEY: Yes, I think it will work out. We may have periods of shut-down when the markets are bum.

THE CHAIRMAN: But you think - -

MR. DENNEY: I think in the overall picture it is going to be successful.

THE CHAIRMAN: Whether there is a railroad, or not?

MR. DENNEY: Yes, I feel that is true, but it will entail shut-downs if the markets are not good. I will say this about what this saw mill means to the local area up there, and I think some comparison can be drawn to what the situation is over on the western route. Our mill is right on the border between - - it is on the Alberta side of the Northwest Territories border, and we have brought in, probably, about five key men. Other than that we are using all local labour there - - natives as well as local whites - - and there is a real big payroll going into the town of Fort Smith, and it is certainly a real advantage to the development of the Northwest Territories because of a stable payroll there.

THE CHAIRMAN: I think we interrupted you when you were halfway through the paragraph at the top of page 4.

MR. DENNEY: Yes.

This involves a revenue to the Government in stumpage alone over this period of several million dollars, and should an access railway be built to Fort Smith, this stumpage rate may be increased to mean several million additional dollars to the government in revenue. The estimated dollar value of production, based on the present operations is two million

dollars a year and with improved transportation could be increased by an additional million dollars per year representing an increase in gross national product and increased revenue to the Government.

I might say here that the product we produce up there and which we send out of there is an exportable product, and should mean something to the trade balance of Canada. I admit that in the whole picture it is very small, but it is a part of the whole.

It cannot be over-emphasized that if this timber resource is not harvested at this time it will be lost forever to the economy of Canada since the forests in the Wood Buffalo Park are mature and in some cases over-mature. The timber, if not cut now will be of reduced value and will not make way for new growth which should be taking place to replace the over-mature trees.

I might emphasize one point which was not emphasized particularly yesterday, and it is this, that in discussions of allowable cuts and sustained yields and things of that nature, those things just do not work on a stand of timber that is immature and over-mature, because a forest that is mature is not increasing in value; it is actually decreasing because of the infestations of rot and disease that attack a tree once it matures. And, in the case of this type of land it is non-productive so far as new growth is concerned, and a sustained yield plan, in

order to work, needs a rapid harvesting of the old timber that is occupying the land and not increasing in volume to make way for the new growth that will be a vigorous and rapidly growing resource.

--- A short recess.

MR. DENNEY: Mr. Thomson was questioning me concerning some of our planning and the decision to put up the mill at Fort Fitzgerald and develop the area, and I might say one of the things that had a very serious adverse effect on our planning was in figuring the economics of this situation we used a five-year average of lumber prices previous to the time we purchased this berth in 1956, and it was only a matter of months after that until this recession hit us, and as of today the average prices for lumber are down somewhere $10 to $12 below that on which our economic planning was done, and that has had a very serious adverse effect.

COMMISSIONER THOMSON: You mean $10 to $12 a thousand?

MR. DENNEY: Less, yes. Had we not had that, things would have been different. However, we have no intention of running. We feel confident that in due course markets will improve.

Another thing that Mr. Gainer was discussing -- and I was thinking about it after we recessed -- you were evidently trying to arrive at what this railroad would mean to us in terms of making our operations more feasible in so far as handling lumber and being on the markets when we should be?

COMMISSIONER GAINER: Yes, that is it.

MR. DENNEY: I would say that a dollar figure has not been worked out, but I know it would

be not less than $2 a thousand, and possibly as much as $4 to $5 advantage, just for handling and getting it on the market and having the ability to make favourable contracts.

COMMISSIONER GAINER: Even if it cost you just as much as now to get it out?

MR. DENNEY: That is correct.

It cannot be over-emphasized that if this timber resource is not harvested at this time it will be lost forever to the economy of Canada since the forests in the Wood Buffalo Park are mature and in some cases over-mature. The timber if not cut now will be of reduced value and will not make way for new growth which should be taking place to replace the over-mature trees. All cutting is done following the best forestry practices and carried out under the direction of the Federal Forestry Department. The systematic thinning of the timber will provide better conditions for the wild life in this game preserve since clearing away the mature and over-mature timber produces better grazing land for the buffalo between logging and reforestation.

I know there has been some concern expressed; I have read it in the papers, as to what the harvesting of this timber would do to the buffalo herds, and my answer is that the harvesting of this timber has no adverse effect on them and, if anything, would have a beneficial effect, because during the period of

harvesting the mature timber and the time the reforestation is up to the size when it covers the ground again, the animals can use the ground. I don't think it is much of a factor though, because there are such fantastic areas up there that the buffalo are utilizing now, and the buffalo do not inhabit the forest areas because there is no grazing for them at the present time.

A railway constructed to the Fort Smith vicinity will be a definite help to the lumbering industry which is supplying a locally manufactured product readily exported to the United States markets, which in turn helps reduce our trade deficit with that country.

In contrast, the encouragement of agricultural production in the area north of Grimshaw will produce a commodity which is in surplus supply on the domestic market, the world market and in particular in the United States.

We are confident from our operations in Northern Canada that the interests of the people of Canada, Northern Alberta and the Northwest Territories, in particular, can best be served by a railway from Waterways to Fort Smith to Pine Point.

COMMISSIONER GAINER: I just wanted to clear up that last point, Mr. Denney. If I understood you correctly, you would put the dollar advantage in your operation, from $2 to $5 a thousand,

just for the year-round service that a rail would provide?

MR. DENNEY: Yes, and the handling of the product and the supply of the mill.

COMMISSIONER GAINER: Put it the other way round: it would cost you a figure the equivalent of that now to be adjusting your whole operation?

MR. DENNEY: I would say that was very correct, but it is hard to pin that down to figures, but I would say roughly from $2 to $5.

THE CHAIRMAN: You say you have presently under consideration the construction of a plywood plant?

MR. DENNEY: That is correct

THE CHAIRMAN: I think, Mr. Baldwin, when you were talking about lumber in the earlier stages of these hearings, didn't you give us an order in council dealing with a number of things, and, amongst them, was the order in council dealing with Wood Buffalo Park?

MR. BALDWIN: Yes, there is one of a series. There were five orders in council passed dealing with the granting of the permits to Mr. Denney's company and to another person who assigned to him, and dealing with, I think, permits to the Swanson Lumber and one other person who assigned to the Swanson Lumber. I obtained one as a sample, and I obtained a certified copy and filed it with

the Secretary.

THE CHAIRMAN: Wasn't a condition imposed at that time that there would be a plywood plant?

MR. DENNEY: That is right; it is a condition of the contract, and we are planning that plywood plant.

THE CHAIRMAN: So, you are planning it, anyway?

MR. DENNEY: We are planning a plant, yes. As a matter of fact, the federal government has undertaken a study this past summer of the product available for plywood manufacture in Wood Buffalo Park because of the fact there was considerable discussion of the over-mature poplar and the defect in it as to whether it was feasible to put a plywood plant in there. Dr. Harrison refers to that study in the letter I read earlier, and the results of it will be available shortly.

THE CHAIRMAN: So, building the plywood plant is not contingent upon the railway? It is contingent upon what you find out about the quality of the timber?

MR. DENNEY: Mainly, yes; that is true.

BY MR. FEEHAN:

Q. I imagine, Mr. Denney, that lumbering operations in Northern Canada are quite a bit different from in the States?

A. Actually, not too much different. Our plant in the United States is in California. We do

have rail service into our re-manufacturing plant. As far as northern conditions are concerned, I would say down there they are tougher because we are in the deep snow area in the High Sierra Mountains and we have deep snow there, sometimes 14 feet.

Q. But you have run into some unexpected difficulties here, though?

A. Yes, one of the factors in addition to this transportation system is a very serious drop in the market during this past recession we have had.

Q. Do you think that if you had anticipated these difficulties you speak of, and someone had told you that no railroad would ever be built there, do you think you might still have gone ahead with this substantial investment of yours?

A. I would say if we realized there was going to be such a drop in the market, we very likely would not have gone into this deal.

Q. Supposing someone had said, "We are never going to build a railway there", would that have influenced you in not going in?

A. I would not say definitely one way or the other on that. I think there is a reasonable chance we would have gone ahead, anyhow.

Q. But you feel you can make a go of it without the railway?

A. We feel that with improvements in markets which I think, barring an unforeseen real depression

-- I think markets will eventually come back and be such that we can operate.

Q. You mentioned something to the effect that in February of this year -- I suppose that you and Swanson Lumber Company and all the operators make representations to the Government for a reduction of the stumpage fees?

A. That is correct.

Q. Were those negotiations going on over a long period of time?

A. I think they were started some time in December and carried on through up until the revisions were made.

Q. If I may ask this, what were the particular grounds on which you would ask for a concession of that nature?

A. The grounds were economic -- the adverse economic conditions during the recession, plus the adverse conditions of operating in the north.

Q. And at the same time you were permitted to reduce your annual output?

A. That is correct.

Q. What was your annual output originally in the order in council?

A. As I remember it, the terms of the original contracts were around 15 million a year after the full development of the facilities. It started out with a comparatively small volume and increased

over a three-year period up to about 15 million, as I remember.

Q. Under the concessions made to you by the government, what is the annual output that you are to make now?

A. The government requires on any timber berth in the park area -- ourselves and Swanson and anyone else involved in future contracts -- that they cut at least a million feet every other year. The reason is, the government does not want these berths to remain inactive, but it does provide for a period when an operator can cut down if the market situation gets so bad he would lose substantial sums of money by operating.

Q. You said you were going to go ahead with the plywood plant: is that regardless of whether a railway is built?

A. When we have the reports on the survey that the government is making now we will be able to develop our plans at that point, and develop feasibility studies at that time.

Q. You are somewhat doubtful, even, if the timber is there?

A. I would say there is a 90 per cent chance of the plant going ahead.

THE CHAIRMAN: Does your contract with the government state that you are to build it?

A. That is right.

THE CHAIRMAN: With a 10 per cent chance ---

A. It doesn't require a plywood plant to be operated, and if necessary to build a plywood plant extensions can be negotiated, and over the period of the next couple of years a plywood plant, I feel, will be built.

MR. FEEHAN: I think that is all, thank you.

THE CHAIRMAN: Have you anything more, Mr. Baldwin?

MR. BALDWIN: No, I have nothing else.

THE CHAIRMAN: Mr. Bishop?

MR. BISHOP: No, sir.

THE CHAIRMAN: I think that is all, Mr. Denney.

MR. DENNEY: Thank you.

THE CHAIRMAN: Thank you very much.

We arranged yesterday that we would adjourn from today until Monday morning, but there is another change since then, and it will be Tuesday at ten o'clock. Mr. Bishop, at that time will you be able to go on?

MR. BISHOP: Yes, Mr. Chairman, we have heard from our people in Calgary and our only question is Mr. Clement, but since he was apparently prepared to be here on Monday, presumably he will be ready on Tuesday.

THE CHAIRMAN: Well, we will go on Tuesday morning at ten o'clock.

---Whereupon the hearing adjourned at 4.45 p.m. until 10.00 a.m., Tuesday, October 6th, 1959.

ROYAL COMMISSION

ON

GREAT SLAVE LAKE RAILWAY

HEARINGS

HELD AT

EDMONTON, ALBERTA

VOLUME No.: 13

DATE: Oct. 4/57

OFFICIAL REPORTERS
ANGUS, STONEHOUSE & CO. LTD.
372 BAY STREET
TORONTO
EM. 4-7383 EM. 4-5865

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

ROYAL COMMISSION ON

THE GREAT SLAVE LAKE RAILWAY

Hearings of the Royal Commission on the Great Slave Lake Railway held at the Court House, Edmonton, Alberta, at 10.00 a.m., October 6th, 1959.

PRESENT:

MR. M. E. MANNING	Chairman
MR. WALTER D. GAINER	Member
MR. JOHN ANDERSON-THOMSON	Member

MR. FRANCIS M. FEEHAN	Counsel
MR. A. PATERSON	Secretary

---On resuming at 10.00 a.m.

---Continuation of the Submission of the Calgary and Edmonton Chambers of Commerce.

THE CHAIRMAN: Mr. Clement, we adjourned your brief to hear some others. What page were we at?

MR. CLEMENT: We were about to start on page 19, my lord, the section dealing with the integration of the railway with the existing winter roads, that is the integration of a proposed railway on the eastern route.

THE CHAIRMAN: Would you like to go on from there?

MR. CLEMENT: Yes,sir.

There is presently a winter road from Hay River to Yellowknife which will be replaced next year by the highway now under construction. There is also a winter road from Hay River to Pine Point and from Hay River to Fort Smith.

My lord, it would perhaps be of interest to see visually these winter roads that we are speaking of, and I have here pictures of the winter road, Hay River to Pine Point, Fort Smith, several pictures of them showing them in actual use. Perhaps I may tender them for your lordship's information.

THE CHAIRMAN: Thank you. These are not

maps, are they?

MR. CLEMENT: These are photographs of the roads in use.

THE CHAIRMAN: May we have a look at them now?

MR. FEEHAN: Would you like them filed, sir?

THE CHAIRMAN: Yes.

MR. FEEHAN: 52-J.

---EXHIBIT NO. 52-J: Photographs of winter roads.

MR. CLEMENT: The railroad terminating at Pine Point on the Eastern Route could thus make use of this existing or an improved winter road from Pine Point to Hay River. Thus in the winter goods going to the west and north of Pine Point and that are best handled by rail and truck could move to Hay River and Yellowknife. It should be pointed out that winter haul on the Pine Point-Hay River road will be able to start up long before winter haul from Hay River to Yellowknife can begin because of the delay in crossing over the ice at the Mackenzie river near Fort Providence.

It should also be noted that this truck traffic from Pine Point to Hay River and west will be relatively light since most goods in this category are best handled by truck directly from Edmonton without making use of any rail transport.

THE CHAIRMAN: I am not sure what is meant

by that. Could you give us some illustrations, Mr. Clement?

MR.CLEMENT: Personally, I am not able to give you detail, but my professional adviser has made a study of this. Could he answer your lordship's question?

MR. GRIMBLE: The reference there is to the traffic that would not use the present highway and would use the combined railway and highway movement in terms of lightness. You may use a tonnage figure; it could be in the order of a thousand tons. When we say light traffic, we mean light in terms of total tonnage; it could be a thousand tons, it could be five thousand tons, but we meant light traffic in this.

THE CHAIRMAN: This traffic from Pine Point to Hay River and west, that is traffic in the winter?

MR. GRIMBLE: Yes.

THE CHAIRMAN: ". . .since most goods in this category are best handled by truck directly from Edmonton . . .". Is there some type of traffic that is best handled by truck directly from Edmonton? Would it be easier to handle by truck than by railway if the railway were there?

MR. GRIMBLE: It means in the winter time, since they can make a through movement by truck to Yellowknife, then there is an advantage in saving the transshipment cost, and in the winter time there is an incentive for truck traffic rather than a combination of rail and truck traffic, because they can

go right through to Yellowknife without any barge shipment. There is an incentive to go right through to Edmonton. This wouldn't apply to cement or flour, but the l.c.l. movements in winter time are mainly perishables or products that people want badly enough to pay the winter truck haul.

THE CHAIRMAN: I suppose this is an assumption you are making; there is no evidence to prove this, it is what you think is likely to happen?

MR. GRIMBLE: No, the present traffic that is carried by the winter road is of that type. The present 7,000 tons a year that goes by the winter road by truck at the present time ---

THE CHAIRMAN: To Yellowknife?

MR. GRIMBLE: To Yellowknife -- is presently in this category of being either perishable or something that people want badly in the winter time that they want to pay the additional truck rate.

THE CHAIRMAN: Do you know what the rate is per ton from here to Yellowknife?

MR. GRIMBLE: The present rate -- it will be changed next year because the road is being improved -- for fourth class truck load rate -- well, the summer rate to Yellowknife is $3.68 per hundredweight. This is a truck load lot.

MR. BALDWIN: From where is that?

MR. GRIMBLE: From Edmonton.

THE CHAIRMAN: Is that right to Yellowknife?

MR. GRIMBLE: Right to Yellowknife. I have it broken down.

MR. CLEMENT: There is a sheet in Exhibit 2 setting this thing out, if you would like to put it in at this stage. Mr. Grimble could read it and it could be filed.

THE CHAIRMAN: Yes.

MR. GRIMBLE: Last year the haul was between January 10th and April 1st. The total tonnage was 7,000 tons. The rates were: for fourth class truck-load lot for general freight, $4.68 per hundredweight. This compares with the summer rate from Edmonton to Hay River, $2.58; from Hay River to Yellowknife, 75 cents, and handling of 35 cents. So the people paid an extra dollar premium on the rate to get it in the winter time. If it was l.c.l. it was another dollar.

THE CHAIRMAN: What was it l.c.l. in the summer time?

MR. GRIMBLE: I am sorry, sir, I haven't it here.

THE CHAIRMAN: $3.68 in the summer time for a full truckload?

MR. GRIMBLE: Yes.

THE CHAIRMAN: You mentioned fourth class rates. Is there any significance about the fourth class? What about classes one, two and three? Do they not apply to Yellowknife?

MR. GRIMBLE: I think the fourth class is truckload lot and the fifth class is l.c.l.

MR. GORDON: Sir, the significance of fourth class rate is that a lot of their heavy, less-than-carload, traffic moves on that particular classification. Classes one, two and three would all handle some, would all cover some l.c.l. traffic in that group, but fourth class, which is your heavy or low-value commodities, would constitute a good percentage of your traffic. I wouldn't like to estimate the percentage because I am not too familiar with the breakdown of the trucking companies' figures. But for the point of information, I have checked with the latest edition of the Alberta Shippers' Guide, which is the guide that the trucking companies use, and that was issued just about six weeks ago, and the first class rate by truck from Edmonton to Yellowknife is $5.82.

THE CHAIRMAN: The first class?

MR. GORDON: Yes.

THE CHAIRMAN: And that is per hundredweight?

MR. GORDON: Yes, per hundredweight. The second class is $5.19, the third class is $4.56, and the fourth class is $3.58. Incidentally, in truckload lots, that is also equivalent to the fifth and tenth classes; they do not go below in that schedule the fourth class rate. Anything that is below that -- and, incidentally, the truckers use the railway classification as their guide -- but anything below takes the

fourth class rate.

THE CHAIRMAN: Is that the summer rate?

MR. GORDON: I presume this would be the summer rate. This was issued about three weeks ago in the 13th edition of the Alberta Shippers' Guide.

THE CHAIRMAN: And the added dollar in the winter time?

MR. GORDON: I am not sure about that. They just quote the rate, but my information is that there is an additional charge, and I think a dollar would be approximately it. Mr. Grimble has looked into that with the Grimshaw Trucking.

MR. GRIMBLE: As the highway gets completed they will probably lower it. Probably in two years' time it will be quite a bit lower.

COMMISSIONER GAINER: Mr. Grimble, could you give us some information on the movement of petroleum products and how it fits in and how you anticipate it is likely to be affected by the winter road through to Yellowknife?

MR. GRIMBLE: I am not sure of this,but I don't think they haul petroleum products in the winter time. They usually move by barge in the winter time. The reason might be that the winter road is too rough, and it was so rough last year that it didn't lend itself to the hauling of tankload lots.

COMMISSIONER GAINER: I suppose there is a possibility that this will continue through to

Yellowknife when this road is improved?

MR. GRIMBLE: It would all depend whether Imperial Oil wanted to meet the competition with their shipment from Norman Wells.

COMMISSIONER GAINER: There would be a commodity rate on that in the summer time. Do you know how that fits in with the schedule we have just been given, the rates?

MR. GRIMBLE: No, I am sorry, I don't. I could check it up.

COMMISSIONER GAINER: This could be a fairly large proportion of the rate, could it not?

MR. GRIMBLE: The petroleum products?

COMMISSIONER GAINER: Yes.

MR. GRIMBLE: Yes. In the MacGregor Report it gies the number of tank trucks that went up the Grimshaw highway in a particular year, and it came to about 3,000 tankloads.

MR. BALDWIN: Page 34, I think.

COMMISSIONER GAINER: Could we find that rate in the Shippers' Guide, Mr. Gordon, or is that ---

MR. GORDON: The petroleum products rate?

COMMISSIONER GAINER: Yes.

MR. GORDON: Yes, I imagine it would be there. I will have a copy of the Shippers' Guide here this afternoon.

MR. GRIMBLE: There were 24,500 tons of petroleum products trucked to Hay River in 1956.

THE CHAIRMAN: That is 1956?

MR. GRIMBLE: Yes.

THE CHAIRMAN: That is last year there were the 7,000 tons. No, 7,000 tons is just the ---

MR. GRIMBLE: General freight to Yellowknife. There were no petroleum products that I know of trucked to Yellowknife in the winter road. I know of no petroleum products going through on the winter road.

COMMISSIONER GAINER: 7,000 tons general freight was just over the winter road extension?

MR. GRIMBLE: Just Hay River to Yellowknife.

COMMISSIONER GAINER: And I would presume this 24,000 odd tons, petroleum products or whatever it is, most of that would be bound for Yellowknife in some small proportion, would it, to Fort Smith?

MR. GRIMBLE: 1,200 tons of freight, Hay River to Fort Smith last year.

COMMISSIONER GAINER: 1,200?

MR. GRIMBLE: 1,200 tons, the rest would be used right in Hay River or hauled to Yellowknife.

THE CHAIRMAN: 1,200 tons from Hay River - 5,800 tons hauled to Yellowknife was used in Hay River, is that right?

MR. GRIMBLE: We were talking about general freight before. The 7,000 tons is general freight, perishable goods and merchandise and so on. Petroleum products we were saying 24,000 tons went up the road from the Grimshaw highway from Grimshaw to Hay River and this was distributed approximately 1,200 tons to Fort Smith and the remainder to Yellowknife was to be used locally right in Hay River.

THE CHAIRMAN: The 1,200 tons is part of the 24,000 tons?

MR. GRIMBLE: That is right.

COMMISSIONER GAINER: Just one other point and perhaps this is pushing a little too far as far as

your information is concerned. But, what would you anticipate on a line of this sort, what happens to the movement of petroleum products. Would you anticipate this would continue by highway movement or is it likely to go by rail at least during the winter?

MR. GRIMBLE: We are thinking now in terms of the eastern route being constructed, how would the petroleum products go to Yellowknife? They would have to go along and transfer to portage and cross the river and this would be only petroleum products that could be satisfied by the Mackenzie River traffic.

COMMISSIONER GAINER: Which is quite a large part?

MR. GRIMBLE: Yes. In past years the Norman Wells whole production was taken north and these figures for 1956 are an illustration I think of the demand on the DEW Line which necessitated more petroleum products from the south. I think the figures today would be somewhat different and there would be more movement from Norman Wells to Yellowknife. Then it would be a matter of how the distributors wanted to enter into the competitive picture. If there was a demand on Norman Wells they would probably compete with this movement and have some adjustment of price.

COMMISSIONER GAINER: I may be wrong here, but is the product mixed from Norman Wells sufficient to satisfy the Yellowknife Slave Lake trade on all products?

MR. GRIMBLE: In terms of quantity?

COMMISSIONER GAINER: In terms of diesel fuel, for instance, medium and heavy.

MR. GRIMBLE: They produce bunker and aviation gas and also car gas.

COMMISSIONER GAINER: In sufficient quantities? They were heavy with aviation gas and had trouble supplying the diesel fuel and furnace oil.

MR. GRIMBLE: When the Dew Line was very active they did have trouble, they could not meet the demand.

COMMISSIONER GAINER: What about the winter movement, would you anticipate they would still have a summer movement?

MR. GRIMBLE: I would think there may be some winter movement but they have the storage facilities now and they would probably continue to use summer movement as now. I think they would stick to the summer movement of petroleum products as long as their storage was adequate and rather than expand their storage I imagine they would start trucking. That would be a matter of demand.

COMMISSIONER THOMSON: Have you any figures, Mr. Grimble, on how much fuel oil and gasoline go down on barge to Yellowknife as to how much goes up the river?

MR. GRIMBLE: No petroleum products cross the portage now, so all the fuel for Yellowknife is

either trucked in over the highway or goes up the Mackenzie. Actually what we are interested in now is how much goes up the highway and how much goes up the Mackenzie.

COMMISSIONER THOMSON: I was interested in how much came down the river. I thought the biggest part of the Yellowknife fuel oil comes down the river?

MR. GRIMBLE: No, they will cross the portage. They delivered daily to Fort Smith, they delivered 700,000 gallons to Fort Smith last year from Waterways and they delivered one million gallons the previous year. This was only a movement from Fort Fitzgerald to Fort Smith. There were 1,000 tons moved from Hay River to Fort Smith in this direction. Actually Yellowknife is served by either Norman Wells or by truck haul to Hay River.

THE CHAIRMAN: I would like to ask another question: these rates Mr. Gordon was giving us, first class $5.82 per hundred weight, that is from Edmonton to Yellowknife?

MR. GORDON: Yes, sir.

THE CHAIRMAN: How much of that - what is the difference between that and to Hay River? I am wondering how much of that is water transportation to cross the lake.

MR. GORDON: I could not tell you without having the guide with me. I will check on that and have it for you this afternoon.

THE CHAIRMAN: Am I right in this that it looks as though the rate approaches $100.00 a ton for all this freight going into Yellowknife?

MR. GORDON: Well I would not say that at $3.45 a ton.

THE CHAIRMAN: $3.58 was what you gave us.

MR. GORDON: Yes.

THE CHAIRMAN: $70.00 a ton, a little over.

MR. GORDON: The first class rate is not a good rate to take an average on. If I were averaging it out I would average for a movement on about a third class rate because that is the big bulk movement.

THE CHAIRMAN: Well, that is $90.00 a ton.

MR. GORDON: Yes. That truck haul over a road like that - over northern roads generally speaking carries a very high ton mile rate and much higher than, for instance, your movement from here to Calgary or Lethbridge. Their operating costs are generally higher particularly in cold weather and the road is not in as good condition so the rate is high. That is also true in northern British Columbia and along the Alaska Highway - they are higher than in southern British Columbia.

THE CHAIRMAN: Last year there were 700 tons of freight went over the winter road to Yellowknife, and if you average that at $90.00 a ton, that was $690,000.00 freighting cost to Yellowknife. Is that right?

MR. GORDON: I have not figured it out. I do not have the tonnage figures of that movement.

THE CHAIRMAN: That is just the winter haul. What about the summer haul? They probably take more freight in in the summertime.

MR. GORDON: There is a pretty fair volume of traffic comes up the highway in the summertime.

MR. BALDWIN: I was trying to get that information for 1958 but it was not available. I was wondering if this is shown in the material filed? That is the 1958 summer tonnage coming up to Yellowknife and the Great Slave Lake area.

MR. GRIMBLE: I have the amount that went up the winter road, the tonnage came to 12 million pounds.

MR. BALDWIN: The summer tonnage?

MR. GRIMBLE: Yes. It is in that exhibit that we filed, the letter from Grimshaw Trucking. I believe they gave it for three years, an estimate for this year was 18 million pounds, that is 9,000 tons Grimshaw Truckings own movements northbound only.

MR. BALDWIN: Page 54 of the MacGregor Report goes from Hay River north and the aggregate is 26,000 tons. I was wondering what the 1958 change in that would be.

MR. GRIMBLE: The 1958 figure for Grimshaw trucking alone is 21,300,000. That would be a little over 10,000 tons and on top of that is the

southbound movement and some petroleum products.

MR. BALDWIN: I just meant north from Hay River.

MR. GRIMBLE: 7,000 last year and 6,000 the year before from Grimshaw Trucking alone.

THE CHAIRMAN: That is what they took from Hay River north?

MR. GRIMBLE: Hay River to Yellowknife in the wintertime.

THE CHAIRMAN: But the 1958 figure was Grimshaw Trucking took 10,000 tons north?

MR. GRIMBLE: The total for 1958 was over 10,000 tons. I am taking these figures from the letter that we have filed.

THE CHAIRMAN: Would it be convenient for you to give us a breakdown for the years 1957 and 1958 showing how much tonnage travelled in the wintertime and how much travelled in the summertime?

MR. GRIMBLE: Yes, we can do that.

THE CHAIRMAN: How much went from Hay River to Yellowknife?

MR. GRIMBLE: Yes, we can do that.

MR. BISHOP: I would like to point out that figure you asked for earlier on the summer rate from Hay River to Yellowknife and the handling rate are embodied in exhibit 52 (k).

THE CHAIRMAN: First class. Let us take the third class, that is the one Mr. Gordon thinks

he should take for an average. $4.56, how much of that is water?

MR. CLEMENT: 75 cents with 35 cents handling charge.

THE CHAIRMAN: So it is $3.46 to Hay River.

MR. CLEMENT: If I could just see the exhibit. What was the question?

THE CHAIRMAN: What I was dealing with was the charges for taking freight from Edmonton to Hay River and from Hay River to Yellowknife which is $4.50 total, is it not?

MR. CLEMENT: On this exhibit general freight fourth class, Edmonton to Hay River, the amount is $2.58 in the summer and then Hay River to Yellowknife is 75 cents and handling 35 cents for a total of $3.68. It is a different category, that is fourth class.

THE CHAIRMAN: Mr. Gordon, you suggest if we take an average we should take third class?

MR. GORDON: I would estimate on the traffic that would move up there a third class average would probably be better, because a large percentage of all that is car load traffic, and the third class on car load traffic covers your canned goods and the multitude of general commodities, petroleum products, lubricating oils and all that type of traffic which is handled on a third class basis. There would be some second and some third and fourth class but I think third class average would be best.

THE CHAIRMAN: That is $4.50 total.

MR. GORDON: Well, the through truck rate under the new guide on third class from Edmonton to Yellowknife is $4.36.

THE CHAIRMAN: $4.36?

MR. GORDON: Yes, which I presume is the summer rate.

THE CHAIRMAN: Mr. Gainer and myself both had $4.56.

MR. GORDON: It is $4.36.

THE CHAIRMAN: Now, can we apply the fourth class schedule with regard to the water and handling charges to these third class rates? Exhibit 52 (a) is what you are reading from, was it not, Mr. Clement?

MR. CLEMENT: 52 (k).

THE CHAIRMAN: And that shows water charge as 75 cents and the handling charge is 35 cents for the fourth class rate.

MR. GORDON: I think that would depend on the contract which the truckers have with the companies on a fishyback movement. I understand Grimshaw Trucking have an arrangement where their complete unit is transferred across the lake and then off-loaded at Yellowknife and deliveries made by the same truck which hauled it from Edmonton in Yellowknife. Then the truck is brought back across the lake and generally speaking on that type of a movement there is an agreed charge or a contract charge

between the water carrier and the trucking company. Generally that is not published and the information is not available in any tariff. I do not know whether Mr. Grimble has been able to get anything on that, but I know it is not published in the tariff at the present time in either Yellowknife or Northern Transportation tariff.

THE CHAIRMAN: Would you mind having a look at this, Mr. Gordon? On exhibit 52 (k) we have a small - Edmonton to Hay River $2.58 - -

MR. GORDON: That is a different thing from a fishyback movement. The rates I was talking about which are on a through rate basis and usually when you take a combination of two local rates you get a higher basis on a throughway basis - this rate I have here is the fishyback rate and fishyback rates should not include any handling charges because it is not handled except the truck is driven on to the barge and over on to the other side.

THE CHAIRMAN: They may charge a little more for the freight.

MR. GORDON: They may possibly charge more, but possibly to the customers then - -

MR. GUEST: Local delivery charge of 50 cents.

MR. GORDON: The water transportation company would naturally want to get some return for carrying the weight of the truck and trailer, and that would be counter-balanced by local delivery charges in Yellowknife because the truck rates include delivery at the consignee's warehouse and your water does not.

COMMISSIONER GAINER: This is 10 cents higher than the Truck Shippers' Guide?

MR. GORDON: Yes.

COMMISSIONER GAINER: This is based on an earlier tariff?

MR. GORDON: Yes, I assume this is based on an earlier tariff. I have the previous issue in my office. I don't know that rate at all.

THE CHAIRMAN: Who prepared 52K?

MR. GRIMBLE: I did.

THE CHAIRMAN: Would you mind telling us how you calculated it?

MR. GRIMBLE: I didn't; I just phoned Grimshaw Trucking.

MR. GUEST: One question -- 35 cents handling charge. Which end is that? Is that at the Yellowknife end of the movement?

MR. GRIMBLE: That would be the total handling charge.

THE CHAIRMAN: Some would be applicable to the south end and some to the north end?

MR. GRIMBLE: Yes. This is the total charge.

COMMISSIONER GAINER: And the only thing we are not clear on is whether these charges would apply in the same way to other classes of freight?

MR. GORDON: Well, your handling charge would apply to classes of freight, and on the Northern Transportation tariffs they do not have so fine a breakdown and practically everything is carried except their light commodities; it is practically all fifth class.

THE CHAIRMAN: Would this be a fair conclusion, that, with regard to the 7,000 tons of winter freight -- which was last winter, wasn't it?

MR. GORDON: Yes.

THE CHAIRMAN: --- that $3.58 a ton was paid for that, travelling from Edmonton to Hay River?

MR. GORDON: $3.58 a hundredweight.

MR. GRIMBLE: It would be something between these two figures last year.

THE CHAIRMAN: Between $4.68 and $5.68?

MR. GRIMBLE: Yes.

COMMISSIONER GAINER: I am not quite sure how you add on your summer rate.

MR. GRIMBLE: You see, there is a dollar difference, a dollar extra.

MR. GUEST: You charge $2 to go from Hay River to Yellowknife?

MR. GRIMBLE: By winter road, by last year's winter road.

COMMISSIONER THOMSON: That is because they

opened it up themselves, without any assistance from anybody.

MR. GORDON: It could possibly be -- I will check this at noon -- but there may be some difference between the rates quoted in the Alberta Shippers' Guide, which is a general tariff put out by the Alberta Motor Transport Association, and it is not an official tariff, it is simply a guide. It may be in the Grimshaw Trucking that they might quote something a little lower than the official guide. I could check with them, and I believe I have their latest rate card on my desk in the office.

THE CHAIRMAN: Mr. Grimble, apropos of what you said a moment ago, is this right, that you think last winter's traffic of 7,000 tons could be reasonably said to travel at an average rate of between $4.68 and $5.68 a hundredweight?

MR. GRIMBLE: Yes.

MR. GUEST: They endeavour to ship in truck-load lots even for l.c.l. shipments.

THE CHAIRMAN: Do you think $5 is a fair figure?

MR. GUEST: It would be closer, yes.

THE CHAIRMAN: It would be close to $5?

MR. GUEST: It all depends on the shipper. I know shippers have tried to ship a truckload lot to save a hundred. It would be in a high cost commodity that they would take l.c.l. and pay the additional

penalty. Five dollars would be close. I think it would be reasonably close.

THE CHAIRMAN: And of that $5, $2.10 applies to the haul across the lake?

MR. GRIMBLE: Round the winter road from Hay River to Yellowknife.

THE CHAIRMAN: So the haul from Edmonton to Hay River seems to be $2.90 a hundredweight, and from Hay River to Yellowknife seems to be $2.10?

MR. GRIMBLE: On the average.

THE CHAIRMAN: Is that a fair conclusion?

MR. GUEST: The rate in the summer time is $2.50.

MR. GORDON: There wouldn't be any difference between Edmonton and Hay River.

MR. GRIMBLE: We have taken an average to get that.

THE CHAIRMAN: Is it different on the summer and winter roads?

MR. GORDON: No. 1 highway is a good highway. It is the same summer and winter. In your level of rates between your southern and northern ---

THE CHAIRMAN: You are suggesting that for third class rate this would be a good average to take?

MR. GORDON: If I was averaging it, that is the average I would use. They are using a truckload rate on that schedule. I would imagine that a good percentage of the traffic going up there, while

it may be in fairly large quantities, would be l.c.l. traffic in the winter time, because it is usually traffic that they want to get in there in a hurry. They usually know far enough ahead that they can buy it to get advantage of the rate.

MR. GUEST: I don't know what truckers do here, but I know in British Columbia they will give 40,000 pounds minimum and take three truckloads to do it.

MR. GORDON: Yes, but I am thinking of the type traffic which we have here in this instance, which is a very high cost traffic compared to what they can do in the summer, and if they were going to buy in quantity they would do it and so get a return in the summer. In buying in quantity you are buying for inventory and you know far enough ahead you want to buy for inventory, and your high cost traffic would be traffic, as Mr. Grimble says, perishable traffic, fruits and vegetables, or traffic which they have a sudden demand for which they didn't anticipate during the period of the year when they are building inventory. I have watched traffic movement for a good number of years, because that is my business day in and day out, and I would assume that this large percentage of winter traffic would be l.c.l. lots.

MR. GRIMBLE: There is really no inconsistency, because if you take the $3.58 and subtract $1.10 you will find it is lower than $3.58. So what we are discussing is the difference between third class

and fourth class.

MR. GUEST: Without having it definitely from the company involved, that is what I think. I think we could find out.

MR. GRIMBLE: The fact that they gave me fourth class is that they thought this was the major movement, truckload lot, and that is the major movement of the 7,000 tons.

MR. GUEST: I believe, as Mr. Gordon said, in the winter time it may have to go l.c.l., particulary fruit and vegetables.

MR. GORDON: I haven't made any analysis of the Grimshaw Trucking movement; I am just talking of my general knowledge of the way traffic is handled and built up, building up an inventory when they have a low rate structure and they bring in the others at the higher rates.

THE CHAIRMAN: I noticed this, that the winter freight last year was 7,000 tons, but in the year1958 the Grimshaw Trucking Company took a total of 10,000 tons north. Does that mean 7,000 tons in the winter time and only 3,000 tons in the summer time?

MR. GRIMBLE: I think there are other movements. That is general freight.

THE CHAIRMAN: Does it mean this, that the general freight in summer time goes up by truck and barge across the lake?

MR. GRIMBLE: Yes, definitely. The winter

haul is only to reduce inventory. It is worth paying this extra dollar to land them there in the winter time.

THE CHAIRMAN: Is it only an extra dollar or is it a good deal extra? For instance, if, in the summer time, the goods go by water from McMurray north, that may be a lot cheaper than the truck rate.

MR. GRIMBLE: We could check that, but it must be competitive, going by barge across Hay River than going by Waterways.

MR. GUEST: Is it not $1.75 by water rate? A dollar seventy-five from Waterways to Yellowknife and 75 cents from Hay River to Yellowknife. These are Northern Transportation rates. These are Class 5 rates -- McMurray, $1.75; from Hay River to Yellowknife they are 75 cents per hundredweight.

MR. FOUKS: I think from Edmonton to Waterways it is $1.75 by rail.

MR. GORDON: By rail from Edmonton to Waterways is $1.31, fourth class. That is Class 55.

THE CHAIRMAN: That is per hundredweight?

MR. GORDON: Yes.

THE CHAIRMAN: These are all per hundredweight?

MR. GORDON: Yes, and Waterways to Yellowknife, $1.75, making a total of $3.06.

THE CHAIRMAN: What is rail from Edmonton to Grimshaw?

MR. GUEST: The distance from Grimshaw to

Edmonton is what?

MR. GRIMBLE: 335 miles.

MR. GUEST: If it goes into another rate group it would go higher.

THE CHAIRMAN: Would it be much different from the $1.31?

MR. GUEST: The rate groups go up by 25 miles, so it may be just under or just over.

THE CHAIRMAN: From Hay River to Yellowknife we know it is 75 cents.

MR. GUEST: Yes, and we know what the truck rate is from Edmonton to Hay River.

THE CHAIRMAN: The truck rate from Hay River---

MR. GUEST: It is fifth rate. This is comparable to Class 5.

THE CHAIRMAN: Here it is -- $3.68.

MR. GUEST: That is to Yellowknife.

THE CHAIRMAN: The difference is 60 cents a hundredweight.

MR. GRIMBLE: Yes.

MR. GUEST: That is a fishy-back rate, of course.

MR. GORDON: Yes, it is a fishy-back rate. It doesn't have to be, though. This is a general commodity rate.

MR. GORDON: No, this is not solely a fishy-back rate.

MR. GUEST: They don't quote a fish-back rate.

Do you have it, Mr. Gordon?

MR. GORDON: Actually I don't. One of my clerks checked this.

MR. GUEST: We have the fishy-back rate here. Hay River to Yellowknife is 50 cents per hundredweight. The minimum weight per season is 2,000 tons, trailer loaded and unloaded at owner's expense.

THE CHAIRMAN: Does that mean it goes by truck and barge for less than $3.68 per hundredweight?

MR. GUEST: Yes. It would go $3.58 plus 50 cents, and this 50 cents is for handling. It would be 25 cents cheaper than the regular tariff. It looks as though it is 50 cents a hundred pounds, 35 cents cheaper.

THE CHAIRMAN: Only 35 cents more expensive to go by truck?

MR. GUEST: Yes.

MR. GRIMBLE: Northern Transportation only deliver to the dock, their price is just to the dock; they put it on the dock and you pick it up from the dock.

MR. GORDON: Those are through truck rates to Yellowknife and include all charges. These rates I qioted to Yellowknife include all charges, including handling -- $3.58, truck, Yellowknife to Edmonton, complete. I will get a copy of this and file it as an exhibit.

---Short recess.

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

THE CHAIRMAN: Well, we did not get very far in the first hour, Mr. Clement?

MR. CLEMENT: No sir, we accomplished a paragraph and a sentence. Mr. Grimble would like to address another word to you on the matters that were being discussed before adjournment.

MR. GRIMBLE: I just made a telephone call and cleared up some of the things that were in doubt in my mind. The figures in the exhibit from Grimshaw Trucking regarding their total tonnages are only their summer tonnages. These do not include the 7,000 tons that go in the winter road.

THE CHAIRMAN: Now, what exhibit is that?

MR. GRIMBLE: This is the Grimshaw Trucking letter.

THE CHAIRMAN: Is this 52 (k)?

MR. BISHOP: 52 (h).

MR. GRIMBLE: There were over 10,000 tons trucked in the summertime and approximately 7,000 tons in the wintertime in the one year, in 1958.

THE CHAIRMAN: Of that 10,000 tons that were trucked how much went to Yellowknife, do you know?

MR. GRIMBLE: Yes, I can give that to you, movement to Yellowknife in 1958, 9,500 tons.

THE CHAIRMAN: 9,500?

MR. GRIMBLE: This would include the

petroleum products. Grimshaw Trucking do not handle petroleum products.

THE CHAIRMAN: Could you check and see what this 10,000 tons was, summer trucking to Hay River - was it by Grimshaw Trucking?

MR. GRIMBLE: Yes.

THE CHAIRMAN: And 7,000 tons was through winter trucking and this is all general freight and not petroleum products?

MR. GRIMBLE: It is all general freight.

THE CHAIRMAN: Do Grimshaw Trucking handle the majority of the trucking up and down that road?

MR. GRIMBLE: I think they handle all the general freight. I am not certain of that, but they handle the majority of it; another trucking company handles the petroleum products. Another matter I would like to clarify, apparently the fishyback rate of 50 cents is not passed on to the consumer and he still pays $3.68 a ton.

COMMISSIONER GAINER: In 52 (k), he pays the figure shown there?

MR. GRIMBLE: Yes. It means in summarizing that on fourth class truck-load rates that the water rate is now cheaper by approximately 60 cents per hundred weight, but Grimshaw Trucking think when they get a year-round road this will be adjusted and be competitive.

THE CHAIRMAN: Do they get a fair amount of

the business even at that extra $12.00 a ton?

MR. GRIMBLE: The Yellowknife Transport shipments that go through by waterways - -

COMMISSIONER GAINER: Perhaps that would not be comparable. That is practically all petroleum products that they would handle.

MR. GRIMBLE: I was thinking of giving you the figures for Northern Transportation Company. The Northern Transportation Company's traffic to Yellowknife over the portage would be in the order of 12,000 tons. That is Fort Reliance and Yellowknife and the general Great Slave Lake area. It appears as far as Yellowknife is concerned an equal amount would go either way even with the price differential.

COMMISSIONER GAINER: That is in the summertime and we are left wondering about the wintertime in the sense there would be no competition and the truck rates would be free to move as they will.

MR. GRIMBLE: The improved road might change the picture as far as waterways being competitive with the road, the improved road from Hay River to Yellowknife, that is the 60 cent differential would probably disappear.

COMMISSIONER GAINER: In the summertime?

MR. GRIMBLE: In the summertime, yes.

MR. CLEMENT: I will continue at the point I left off.

This winter road can be used from December

to April. The winter haul from Hay River to Yellowknife across the Mackenzie River ice is normally possible January 1st to April 15th. This combination of rail movement and then winter road truck haul from Pine Point to Hay River would be an improvement over the existing situation in the spring, since during the month of April the road bans in Alberta from Grimshaw north close this highway while hauling over the frozen north roads continues until late April. This railway integration with winter roads would thus allow nearly an additional one month of winter haul to the north.

3. Recommended Winter Roads: As mentioned earlier the proposed Eastern Railway Route to Great Slave Lake terminating at Pine Point would serve the truck haul during the shut-down season of water transport to both the north and the west on existing roads as well as give rail access to Fort Smith. Uranium City could then be served from rail at Fort Smith in the winter time via the new road to Fort Fitzgerald and a 110 mile winter road extension.

THE CHAIRMAN: Before you go further, we have a letter filed from the Grimshaw Trucking Company saying they would be willing to build that road.

MR. CLEMENT: Yes, it is an earlier exhibit.

THE CHAIRMAN: Do not worry about the exhibits just now, but could you tell me what rates they contemplate charging?

MR. CLEMENT: The exhibit is 52 (i) and I do not recall whether rates were stipulated.

THE CHAIRMAN: I do not think they were. I meant to ask at the time but I overlooked it.

MR. GRIMBLE: In the previous exhibits we showed that. The last one we put in was 52 (i) and it shows this at the bottom of the page.

MR. CLEMENT: Possible winter rate from Fort Smith to Uranium City $24.00 a ton or $1.20 a hundred weight.

THE CHAIRMAN: Do you know what the air freight is from McMurray to Uranium City?

MR. CLEMENT: No sir, but I am sure we can readily get it. Mr. Gordon will see if it can be obtained for you.

Fort Chipewyan can readily be served from rail at Peace Point in the wintertime via the existing summer road to Scow Channel and a 35 mile winter road extension.

THE CHAIRMAN: That is from rail at Peace Point in the wintertime?

MR. GRIMBLE: There is a road down now from Peace Point along the base line,it goes down to the point of Scow Channel which is the cut-off channel between Peace River and Slave River. It goes right to the point here, the very point of the island. The conjecture there is this road would be extended across the low ground in the wintertime to serve Fort Chipewyan.

MR. CLEMENT:

The use of winter roads in conjunction with rail transport should not be overlooked as a means of opening up the Canadian Shield north of Lake Athabasca and east of Great Slave Lake since these winter roads if properly located can offer an excellent facility for an initial cost as modest as $1,000.00 or less per mile and provide satisfactory land transportation for nearly five months of the year. The small amount of snowfall allows inexpensive maintenance if the roads are located through bush country away from the large open lakes.

Mr. Grimble has already explained to you that drifting conditions make roads inadvantageous.

MR. GRIMBLE: In regard to the winter road from Fort Fitzgerald to Uranium City, there is another consideration. The construction of a hydro line from the power development in the rapids to Uranium City, and this would follow a straight line routing to Uranium City. In addition to this the communications people now by virtue of the fact the hydro line is being contemplated, they are thinking on the terms of putting their land line in the same clearing as the hydro line which would result in a winter road being built by these people to construct the facilities. So, the winter road will be there a matter of two or three years regardless of this scheme.

THE CHAIRMAN: Well now, is that winter road going in, you say, in two or three years time

positively or is that conditional upon the power being developed at Fort Smith.

MR. GRIMBLE: Grimshaw Trucking are interested in pushing through a winter road in their own right and they are probably not aware of this telephone or hydro line which I have checked on myself. People that are interested in the telephone line have under consideration using the VHF from Fort Chipewyan to Uranium City, but if the hydro line goes through and it should be settled in the next month or so, then the people interested in the communications land line would change their thinking to fit in with the hydro line. There are a lot of "ifs" but it could materialize this way.

THE CHAIRMAN: But there is nothing built across their?

MR. GRIMBLE: By land line or VHF.

THE CHAIRMAN: What is VHF?

MR. GRIMBLE: Very high frequency. They would consider a land line to Fort Chipewyan with VHF across here, but if the hydro line goes in they would change their plan and work together in putting them both through this way.

THE CHAIRMAN: Does VHF require a road?

MR. GRIMBLE: No, it does not. There would not be the winter road and Grimshaw Trucking would be left to build their own winter road which they are prepared to do.

THE CHAIRMAN: So is it fair to say with

regard to the proposal for communications, there may be a winter road built there anyway?

MR. GRIMBLE: Yes, sir.

COMMISSIONER GAINER: I was not quite clear on this last statement: were you suggesting there would be the road for the purposes of communications in the absence of the hydro development?

MR. GRIMBLE: This is still under study, whether they use VHF or a telephone land line is under study. The original proposal was to use VHF and when they heard of the hydro line they seriously considered the change and this would probably be the biggest single factor that would change their thinking.

COMMISSIONER GAINER: It seems to me it would mean the use of a land line from Fort Fitzgerald would be conditional upon the hydro going through.

MR. GRIMBLE: It seems that is right, there is still doubt as to which way they would go in any case.

COMMISSIONER THOMSON: Why are they building a road from Smith to Uranium City? Is that conditional upon - what traffic is there from Smith to Uranium City now?

MR. GRIMBLE: If the railway went to Fort Smith, Grimshaw Trucking would be prepared to push through a winter road.

COMMISSIONER THOMSON: That is only on condition. What about the hydro, who is putting in

the hydro or is that still in the - -

MR. GRIMBLE: Eldorado Mining are interested in getting power from the rapids.

COMMISSIONER THOMSON: But there has been nothing done.

MR. GRIMBLE: Study has been conducted and geophysical soundings taken and a report will be submitted this week to consider the merits of it.

COMMISSIONER THOMSON: Well, was that not done just a few years ago?

MR. GRIMBLE: This is in addition to a study by a different firm. The reason I brought this into the picture is because there are three good reasons for a winter road and any one of them is probably justification for it.

COMMISSIONER GAINER: But one of these, Grimshaw Trucking is definitely conditional upon a railway going through and the other two might not be.

MR. GRIMBLE: Not entirely. Grimshaw Trucking operate a winter service from Hay River through to Fort Smith and they might push it through. Of course, then the rates would be very high and it is doubtful how much would be moved. The amount that moves by winter road would be a factor on cost. When they have to truck to Hay River through this winter road and another piece of good road and then the winter road again, the cost to Uranium City people - this will really be high class freight before it lands there.

There is freight of this nature but not of large tonnage.

COMMISSIONER THOMSON: Would it not be better to go round the north end of Slave Lake and back down? Why would you haul it up as far north as Hay River and then back to Uranium City?

MR. GRIMBLE: This is the only road that is available.

COMMISSIONER THOMSON: Could they not put a new road in from McMurray and along the south shore of the lake and across?

MR. GRIMBLE: They will not tackle the lake for winter traffic.

COMMISSIONER THOMSON: Well, if they go -

MR. GRIMBLE: From McMurray, yes, it would be much shorter. There is no road to Waterways now.

COMMISSIONER THOMSON: Even if you do go to Hay River and back.

MR. GRIMBLE: This is the only route to build a piece of road through here and this is high class freight because of the extra mileage and long winter haul. Their rates are approximately 20 cents per ton mile on the winter road and there is 100 miles here and another 200 miles here at 20 cents per ton mile.

There was one other item about winter roads that I would like to mention, the fact that a winter road such as - a development road such as this or a

winter road which is properly located in a good location, reasonably straight, for five or six months of the year is as good almost as a paved highway. As far as trucking costs are concerned they can haul in as fast as on a paved highway. This means that a development road such as this in the wintertime is a very good standard of road.

MR. FOUKS: Why 20 cents per ton mile then?

MR. GRIMBLE: Well, I was thinking in terms of development road. When I say it was as good as a paved highway I was thinking in terms of a developed road such as this. This road we built from Yellowknife west, in the wintertime we could drive comfortably at 40 miles an hour.

THE CHAIRMAN: How do you distinguish between these two roads, the roads which charge 20 cents per ton mile and the development road?

MR. GRIMBLE: I think any road they push through the bush would be a 20 cents a ton mile category and the development road would probably be in the 10 - 12 cents category.

THE CHAIRMAN: The kind of road that Grimshaw Trucking is talking about from Fort Smith to Uranium City I take it is the winter road that is 20 cents a ton mile?

MR. GRIMBLE: Yes, equivalent to the road they built to Yellowknife over here. That is what they visualize in here.

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

THE CHAIRMAN: What kind of a road is there now from Hay River to Fort Smith? Is that 20 cents or 10 cents?

MR. GRIMBLE: I think that would be 20 cents the condition it is in now.

THE CHAIRMAN: You say the Eldorado Company is considering a power development at Fitzgerald or between Fitzgerald and Smith?

MR. GRIMBLE: Yes.

THE CHAIRMAN: And they are going to have a report within a week?

MR. GRIMBLE: Yes, this is the word I had; they are expecting a report within a week or next week.

THE CHAIRMAN: Are they going to make a decision whether they will develop power?

MR. GRIMBLE: I don't think it would be that soon. Some time this winter they will be making a decision. I know the report is being made and I know they have made these geophysical soundings. I don't know the rest at all.

MR. CLEMENT: Then, sir, in the summary part of this ---

THE CHAIRMAN: Did you finish page 21?

MR. CLEMENT: Yes, I finished page 21.

The western portion of the Province of Alberta will be well served by the improved Mackenzie highway giving an adequate highway connection to the Great Slave Lake area and its tributary area. Consequently, supplies best suited to highway transport will continue to move by this route regardless of which of the two alternative railway routes is chosen.

If the eastern route is constructed (Water ways-Fort Smith-Pine Point), Hay River Harbour will still remain the transshipment point for those goods and

services that would be handled by truck transport. The materials best handled by rail constitute primarily the lead-zinc deposits at Pine Point plus any mining developments in the Lake Athabasca District plus any new mining developments in the Canadian Shield in the area north of Lake Athabasca and south or east of Great Slave Lake.

Then, sir, we come to the consideration of the integration of the railway with water transport.

THE CHAIRMAN: Before we go on to that -- when we are talking about these rates from Edmonton to Hay River, how much is that a ton-mile? Have you calculated it, Mr. Grimble?

MR. GRIMBLE: No, sir, I haven't. We could do it quite quickly.

MR. BISHOP: Seven hundred and two miles. According to the chart on page 16 of our brief, your lordship, it is 702 miles from Edmonton to Hay River.

THE CHAIRMAN: The summer rate appears to be a little over $50 a ton, doesn't it?

MR. GRIMBLE: 7.04 cents a ton mile. This would be the average rate from Edmonton to Hay River. A portion of it is pavement, a good road, and a portion of it is gravel road.

THE CHAIRMAN: How much did you take for that?

MR. GRIMBLE: $51.60.

MR. CLEMENT: On the integration of the proposed railway with water transport: The area under

consideration in this report is now served by water transport from the end of steel at Waterways down the Athabasca river to Lake Athabasca then via Riviere des Rochers or Chenal des Quatre Fourches to the Slave River, thence down the Slave River to Fort Fitzgerald, over a 25-mile portage to Bell Rock Harbour, and down the Slave river to Great Slave lake. The Great Slave Lake area is also served by harbour at Hay River at the north end of the Mackenzie Highway.

Navigation up the Peace River from the Slave river was, until last year, carried out by the Hudson's Bay Company to the settlement of Red River at the foot of Vermilion Chutes.

I take it these are not difficult for your lordship to follow, or would you like them described on the map?

THE CHAIRMAN: We know all these places that have been referred to.

MR. CLEMENT: It has been proposed that the railway proceed by either the eastern or western route directly to the Pine Point lead-zinc deposits and then in order to serve a harbour for Great Slave lake and the Mackenzie River System it was proposed to extend the rail a distance of 10 miles to the south shore of Great Slave lake at a point called Ile du Mort (Dead Man's Island). It has been considered that this location offered the most satisfactory site for a harbour on the south shore of the Great Slave lake between the

mouth of the Slave river and the mouth of the Hay river. However, if the use of only shallow draft vessels is continued, there is little merit in opening up a harbour at Ile du Mort at this time as Hay River Harbour and Bell Rock Harbour would satisfactorily serve Great Slave Lake.

The eastern route has been shown on Map No. 2 as serving the harbour at Bell Rock. This harbour would be the transshipment point for goods moving to Great Slave lake and the Mackenzie River system by rail and barge. Hay River harbour would be maintained to serve goods which are best handled by truck transport from Edmonton to Grimshaw.

The eastern route is shown as crossing over the Peace river at Peace Point, at which location a wharf could be constructed to allow the transshipment of goods from rail to water and by way of the Peace River, Chenal des Quatre Fourches and Lake Athabasca to serve the mining area of northern Saskatchewan. This transshipment point would eliminate the problem of operating on the Athabasca river during low water periods, when sand bars and shallow water make operations slow and unreliable and barges must be loaded for minimum draft. The Peace River from Peace Point, besides offering an excellent waterways for deep draft during the full navigation season, will shorten the water haul to Uranium City by nearly a hundred miles.

THE CHAIRMAN: Mr. Clement, I think we know

exactly what it is, don't we?

MR. CLEMENT: I think we have spent some time on that.

THE CHAIRMAN: Seventy miles.

MR. BISHOP: My lord, could I ask Mr. Gordon to appear as a witness? I think this would be an appropriate point to discuss the point of the probable result on freight charges to Uranium City and Uranium City shippers. It is a point we know the Commission is very interested in. At the same time I would like to make sure that this is kept in proper perspective. We propose to show that the transshipping at Peace Point rather than Waterways will not be to the disadvantage in any way of the shippers at Uranium City and may be to certain advantage. We are not attempting to support the railways' position that this is going to create some brand new revenue to somebody without taking it away from somebody else.

THE CHAIRMAN: Did you say you do or you do not support the position?

MR. BISHOP: We do not propose to attempt to support the railways' position in this matter. In other words, the very vital figureof $600,000 revenue which the railways claimed as an advantage which would accrue to the railroads if the eastern route were built -- we fully agree it could only be realized in total by deducting the same sum, at least in part, from revenue that is now coming to Northern Transportation or,

alternatively, by adding it, at least in part, to the total bill paid by shippers in Uranium City; and we realize, of course, that neither of those cases would be in their advantage; in fact, one would be a disavantage or would be arguments to the building of the eastern route.

Now, I don't mean to say by that, Mr. Chairman, that there are not financial advantages to the Peace Point transshipment, and we will try to indicate what they are. But I want to make it clear that Mr. Gordon's figures are not intended to support that $600,000 which the railways said they would get from the freight now going to Uranium City.

Now, with those remarks, I would like to ask Mr. Gordon to come up and give his views on freight rates.

MR. CLEMENT: Just before he starts, Mr. Chairman, this reference to 100 miles at the point at which I stopped has been more accurately calculated by Mr. Grimble, who informs me that the figure should be 79 miles.

THE CHAIRMAN: Have you the exact figures there, Mr. Grimble? How long is it from McMurray, how long a distance from McMurray to Uranium City?

MR. GRIMBLE: It is 273 miles.

THE CHAIRMAN: 194 from Peace Point?

MR. GRIMBLE: Yes. We were using 168 before. We have changed it now to 194, by using the

larger-scale maps available, and previously we were using the smaller-scale maps.

COMMISSIONER THOMSON: Can you use that when the Athabasca is low, can you ship down the Chenal des Quatre Fourches?

MR. GRIMBLE: It is a different channel as far as depth goes at all times.

COMMISSIONER THOMSON: You mean there is water in it at all times?

MR. GRIMBLE: It is the deepest and most desirable route at all times. The most direct route is Fitzgerald, but if you were going by Peace Point you would use this one. But they use this one in the fall all the time because it has the deepest water. It always runs this way in the fall, and even in July it ran this way for a while.

MR. BISHOP: Mr. Chairman, could we ask Mr. Grimble to mark the channel,so there will be no misunderstanding?

MR. GRIMBLE: That is the Catfish channel and this is the Rochers River channel. This is the more direct, the Catfish channel; that is the more direct from Peace Point to Uranium City, and this is the one that is preferred in the fall. The Rochers River channel is the more direct from the delta to Fort Fitzgerald, but even in the fall they use this at the pre sent time.

MR. BISHOP: Mr. Chairman, we would like to enter that map as an exhibit. I see we did not mark

it before.

THE SECRETARY: No. 52-L, sir.

---EXHIBIT NO. 52-L: Map.

MR. BISHOP: Excause me, Mr. Chairman, could I ask Mr. Gordon, for the record, to give us some indication of his experience in the matter of freight rates, his qualifications?

THE CHAIRMAN: Yes.

MR. GORDON: Mr. Chairman, I entered the service of the C.P.R. in the spring of 1922 in the Operating Department, and in 1923 was transferred to the Freight Department in the City of Vancouver. I stayed in the local freight service of the Canadian Pacific Railway in Vancouver from 1923 to 1943, during which time I held many positions in the freight office, including that of Chief Biller and Chief Revising Clerk, both of which are responsible for the assessment of freight charges on the traffic handled in that office, the Chief Biller assessing the figures on outward movement and the Chief Revising Clerk taking the inward movement.

In 1943, at the request of Northern Alberta Railways, I was placed on loan transfer to the Northern Alberta Railways in Edmonton in the Audit Department for the purpose of making a re-audit of the freight rates on traffic which moved during the construction of the Alaska highway. I stayed with the Northern Alberta

Railways for three years on that work, both checking the rates and working on the revision of revenue between the various carriers involved in the shipments.

After three years' service with them I was requested by the late Honourable Mr. Fallow, Minister of Public Works of the Government of Alberta, to accept a position with the Alberta Government as Superintendent of Freight and Traffic, which had the responsibility of handling the freight traffic as far as rates and routing are concerned by the Government of Alberta.

Also during that time I worked extensively in the preparation of material for the general freight rate investigations, both by the Board and the Royal Commission, as well as on the various increase cases. I stayed with the Alberta Government for eight years until 1954, when I took a position with the Excelsior Refineries Limited as Traffic Manager for that company. At the end of 1958 I terminated my services with that company, and have since engaged in my own business as a transportation consultant and freight traffic services.

I might say that in making the change I took the work of the former Excelsior Refineries, now Canadian Kodiak Refineries, with me on a contract basis, and I now handle their work as I did when I was their traffic manager and as an employee.

That is a very brief history of my work in freight traffic.

In looking over the brier submitted by the

Government of British Columbia, I noticed several rate tables in their submission, three to be correct, which indicate, according to the heading of their section of the brief: "The Impact of the Slave Lake Railway on Transportation Costs to Lake Athabasca Points" -- they quote on page 23 of their brief rates on class-rated commodities, using class 55 and 5th class rail and barge from Edmonton to Bushell, Saskatchewan, and on their rate from Edmonton to Waterways they use a 4th Class rate of $1.31.

THE CHAIRMAN: Mr. Gordon, I didn't catch your first remark. Did you say something about rates from one point in Saskatchewan ---

MR. GORDON: No, from Edmonton, Alberta, to Waterways -- well, from Bushell, Saskatchewan, which is the port for Uranium City. For Edmonton to Waterways they quote a mileage of 305 miles and a rate of $1.31. From Waterways to Bushell, a mileage of 273 miles and a rate of $1.65. Their rate and mileage apparently on that submitted are both in error. The correct mileage, I have now been advised, is 194. We previously had a figure of 168, but it is now changed to 194.

THE CHAIRMAN: Has it been changed to 194? Is that not the Peace Point-Uranium City distance?

MR. GORDON: No, Waterways is correct. I was looking at the wrong line. It is 273 miles, with a rate of $1.65. That rate should be $1, according to

the Northern Transportation tariff. So instead of the through rate being $2.31, the following would be the correct rates: Edmonton to Waterways, $1.31; Waterways to Bushell, $1; total through rate, $2.31. Edmonton to Peace Point, 525 miles, $5.25.

THE CHAIRMAN: These are on pages 22 and 23?

MR. GORDON: Yes. Edmonton to Peace Point, 525 miles.

THE CHAIRMAN: I wonder if I could go back and revise the copy of this report.

MR. GORDON: This is Class 55, rail, 5th class barge, from Bushell, Saskatchewan, to Edmonton, Alberta, $1.31; Waterways to Bushell, 273 miles, $1.65. The correct rate there should be $1. The correct total should be $2.31. The correct mileage should be 194. I am sorry, the correct mileage is 273. The mileages are correct in the British Columbia brief. The only correction there is that the rate of $1.65 should be $1; the total should be $2.31.

In the next section of that same example from Edmonton to Peace Point, 525 miles, the rate is shown as $1.79 and from Peace Point to Bushell the mileage is shown as 203, it should be 194 and I have not a tariff here to check that, and I have not had time since I got the correct mileage to readjust that figure on the basis of a pro-rate on the Waterways rate, but there would be some difference. I would estimate roughly that the rate would be possibly something from $1.05 to $1.10 - pardon me, the rate would be roughly - I would have to figure it out, I would not want to estimate it.

COMMISSIONER GAINER: About $1.43, something like that. You are scaling it down proportionately.

MR. GORDON: It would be the percentage of 194 to 273 of $1.00.

MR. FOUKS: We found our nine miles anyway. Would it not be the percentage 194 to 203 or just under 5 per cent?

MR. SOUTHWORTH: 4 per cent.

THE CHAIRMAN: The handling charges do not change any and they are said to be the major portion of the whole thing.

MR. GORDON: Well, the rate you would have to work on, you would take your rate to Bushell of $2.73 and your rate from Peace Point to Bushell, so your miles of 194 divided say 273 into 194 will give you the percentage, and then take that percentage of

$1.00 and it will give you the rate based on the same formula that the British Columbia Government used in preparing their brief.

COMMISSIONER GAINER: About 96 cents then.

MR. GORDON: I have somewhat less than that, 70 cents from the slide rule so instead of a total of $3.29 you would have a through rate of $2.49.

THE CHAIRMAN: How do you arrive at the $2.49? You do not change the $1.79?

MR. GORDON: No but you change the rate which they give you as $1.50 to 70 cents.

THE CHAIRMAN: How do you get the 70 cents?

MR. GORDON: It is a mileage pro-rate using the mileages of 194 and 273 and applying that to the rate from Waterways to Bushell, assuming that the railways would pro-rate their revenue. Now, in speaking to that I would suggest that that formula while it is all right for general comparison is something which the railways would not do. There rarely is a rate figure on a straight mileage pro-rate, because if it is done in that manner, it does not reflect any rate of taper-off on longer distances, and if the railways were adjusting that on a basis of a proper scale that rate of 70 cents would possibly be two or three cents higher. I have no way of checking here what the taper - -

THE CHAIRMAN: Your suggestion is that it should be around 70 cents?

MR. GORDON: Yes.

COMMISSIONER GAINER: This would be 194 over 273 of $1.00, is that it?

MR. GORDON: Yes.

THE CHAIRMAN: This has been suggested several times that when you ship from Waterways to Uranium City that a large part of cost or the charges relate to handling charges.

MR. GORDON: That is true in all transportation and that is the reason why I just mentioned that in setting the rates the railways set a rate that we in freight rate circles call the rate of taper. In other words, for the greater distance your ton mile reduces and that is to cover the terminal charges which remain the same whether your haul is 10 miles or 2,000 miles. You have to load it and you have to unload it and your billing and accounting costs remain static. The only cost that varies is your actual transportation cost.

THE CHAIRMAN: Have you made allowances for that when you say it should be only 70 cents or 72 or 73 cents?

MR. GORDON: No, I did not, because I used the same method as the British Columbia Government used in their submission.

THE CHAIRMAN: Where? Have they used that in these figures?

MR. GORDON: Yes, that is the same basis

they used to arrive at that.

THE CHAIRMAN: Where do you see that?

COMMISSIONER GAINER: What you are suggesting is that in the classification called future rate the rate from Edmonton to Peace Point remains, no taper beyond Waterways?

MR. GORDON: Yes. As I pointed out, while the freight mileage pro-rate is now 70 cents the rate would possibly be two or three cents higher because it is a shorter distance and it would be a little higher to cover the terminal charges or handling and other charges. However, as I stated, the railways would never set a rate for a shorter distance on a straight mileage pro-rate and a longer route.

THE CHAIRMAN: Are you talking about railway rates or Northern Transportation?

MR. GORDON: Well, that is true of all transportation systems whether it is by rail or water or truck or air. A good portion of the through charge is in your terminal, your handling charges at both ends which remain static regardless of the length of haul. In order to compensate for those the rates for shorter distances are higher on a ton mile distance than for longer distances and you would have to take those into account in properly assessing the effect of these rates.

THE CHAIRMAN: I think perhaps we shall adjourn now for lunch and come back at 2 o'clock.

Just before we adjourn, I am not sure that I understand, Mr. Gordon, just what the significance of this is unless it is that whereas the British Columbia brief suggests that there is going to be 33 cents difference, you say there is going to be a difference of only 18 cents.

MR. GORDON: Yes, that is the significance of it.

THE CHAIRMAN: You both agree that it would appear it would cost more to go via Peace Point to Uranium City?

MR. GORDON: On the basis of that formula I would have to agree that it would, but there are other factors to be considered and considering a problem of this nature I would like the adjournment to go into those factors.

THE CHAIRMAN: The difference between you and British Columbia is you say they have exaggerated?

MR. GORDON: Well, I think it was just a mistake. They took the maximum permissible rate allowable by the Board on the Northern Waterways instead of the actual effective rate which the Northern Transportation Company have published. They possibly did not have the Northern Transportation tariff available and made an error of that nature.

COMMISSIONER GAINER: You are speaking of the $1.00 and $1.65 figure. The only other difference is a slight difference in mileage.

MR. GUEST: The $1.65 is a fifth class rate in Northern Transportation and the $1.00 is a commodity rate and Mr. Gordon is quite right in that in comparing the two class rates and he is comparing the two commodity rates.

MR. GORDON: I beg to disagree that $1.00 rate is also a class rate. The Board of Transport Commissioners have set a maximum scale for the Northern Transportation and all transportation companies operating in these northern waters above which they cannot charge for shipment. It is something like that old standard mileage rate and the railways have the maximum rate but very seldom use it. Now, the Northern Transportation Company in their general standard freight tariff publish rates between most of the points of their line on a point to point basis, and they are published not as commodity rates, but as class rates and there is a difference between a class rate and a commodity rate because a commodity rate generally covers certain commodites whereas the class rate is to all merchandise according to their classification.

COMMISSIONER GAINER: Are you suggesting they have no commodity rates?

MR. GORDON: No, because they do publish the same tariff, for instance, the two other examples, sulphur and petroleum products. This particular one is a class rate, but is the effective or standard

class rate and not the maximum class rate as set by the Board.

THE CHAIRMAN: Is there much significance to that? As I understand it the petroleum and sulphur make up the bulk of the freight that moves north. Perhaps the commodity rate is a better rate to refer to for comparison purposes.

MR. GORDON: That depends. There is a lot of stuff moves up there on class rates too.

THE CHAIRMAN: Perhaps you could discuss that with Counsel and get together during the noon adjournment.

MR. FOUKS: Mr. Feehan has the figures from Northern Transportation, I believe.

THE CHAIRMAN: Sulphur is 12,000 tons, is it not?

MR. FEEHAN: Bulk sulphur is $12.00 per ton, the rate of fuel oil is $9.00 per ton and the rate of cargo, lots of which 20,000 pounds is a cargo lot, is $18.00 per ton. That is from Waterways to Uranium City. I also have the general freight of the petroleum bulk freight rates, the bulk shipments during the last year if you wish to have them.

MR. GORDON: I think I can give you some figures on the amount of general traffic that moves after the adjournment. I have that letter in my brief case. That is from Waterways to Uranium City, which would move under class rates. However,

although this discussion will possibly be interesting from a technical point of view on freight rates, I do not think it has too much of a bearing whether the rate is a class or commodity rate.

THE CHAIRMAN: That is what I was wondering about.

COMMISSIONER GAINER: I would like to see some reconciliation between the $1.00 and $1.65. I do not know whether we have to do that by definition or by figure.

MR. GORDON: One is the general freight tariff which they publish and the other is the maximum.

COMMISSIONER GAINER: That is not what Mr. Guest suggested.

MR. GUEST: In effect that is what I say the $1.00 is in essence a commodity rate.

COMMISSIONER GAINER: On what commodity?

MR. GUEST: Fifth class, which is general freight. It is loosely termed general freight.

COMMISSIONER GAINER: What I am interested in is that the Board makes the figure you are quoting us their effective figure.

MR. GUEST: It is the effective figure. Certainly if I can ship for $1.00 I would and not for $1.65. What commodities can be shipped and the minimums that they require they give a reduction on quantities and volume, I think I can have that detailed or I am sure Mr. Gordon can after lunch.

MR. GORDON: Just for the record I would like to quote you the effective rates published by the Northern Transportation Company from the first to fifth class from Waterways to Bushell or Uranium City:

First class is $2.00; second class is $1.75; third class is $1.50; fourth class is $1.25; fifth class is $1.00; sixth class is 90 cents. They go on down to tenth class reducing it ten cents per hundred weight. That is from the official tariff of the Northern Transportation Company. Also on that page immediately preceding the rate basis table in its tariff 46 the following note is given:

> "When the total weight of the shipment of goods from one region in one day by one shipper for delivery to one consignee at one destination exceeds 20,000 pounds the rates published herein lose 10 cents per hundred pounds shall apply, so long as the resultant rate does not become less than a minimum rate."

On those rates I quoted if the quantity was over 20,000 pounds in one lot, they would be reduced by 10 cents per hundred weight.

COMMISSIONER GAINER: Which would be $1.65 on second class?

MR. GORDON: Yes. Similar rate published on a point to point basis between other ports on their system. I think the party who prepared the British

Columbia brief possibly did not have the full tariff or something of that nature and an error was made and I thought I would clear it up. Under that basis there is still a difference in rate which indicate that the rates to Uranium City would be higher, but I would like to discuss that matter after adjournment.

MR. FOUKS: I would suggest it is not an error, it is a different application of a rate. Mr. Gordon has applied the $1.00 rate and ours is a different application.

MR. GORDON: I would submit if the rate of Northern Transportation Company for delivery from Waterways to Bushell, Saskatchewan, the rate as quoted in the British Columbia brief of $1.65, I would say that would never be applied.

MR. GUEST: I agree.

MR. GORDON: And if they did apply it and in my business I got hold of the bill I would certainly file a claim and get the difference back.

MR. GUEST: I agree it is a question of comparison, you compare two figures and if you use the same basis for comparison you have got the same percentage result.

COMMISSIONER GAINER: That is all we are interested in here.

MR. GUEST: I would like to discuss this with Mr. Gordon because there is only one answer to it, there cannot be two answers.

THE CHAIRMAN: Yes, you gentlemen discuss it at the luncheon recess.

MR. GORDON: Yes, but I think the actual level of the rates and the actual difference will have some bearing on what I can say this afternoon.

THE CHAIRMAN: Very well, we will adjourn now until 2 o'clock.

--- Luncheon adjournment.

---On resuming at 2.00 p.m.

MR. BISHOP: Would you like me to try and collect Mr. Gordon?

THE CHAIRMAN: Mr. Gordon and Mr. Guest have just been having a consultation outside the room. I thought perhaps we would wait until they finished.

MR. BISHOP: Wouldn't it be easier for the reporter and possibly Mr. Gordon as well if he stood up in the witness box?

THE CHAIRMAN: Would that suit you,Mr.Gordon?

MR. GORDON: Yes, fine.

Sir, I now have me with the current edition of the Alberta Shippers' Guide; I believe you wanted some information on that. The rates from Edmonton to Hay River ---

THE CHAIRMAN: How would it be if you carried on with what you were discussing at the time of adjournment and get that cleared up?

MR. GORDON: That would be fine, sir.

We were discussing, sir, at the time of the adjournment,the matter of the comparison in rates as shown in the British Columbia brief on class-rated traffic, which indicates an increase in freight charges and the transshipment point to be changed from Waterways to Peace Point. Now, to carry on ---

COMMISSIONER GAINER: Perhaps I may interject, Mr. Gordon. Were you able to fall into a reconciliation

with Mr. Guest on this $1.65?

MR. GORDON: I think we understand each other. Mr. Guest used the maximum rate for the first part of his example there, and then he used the standard mileage rate for the second part. I used the effective rates in the tariff and which are always charged by the Northern Transportation Company in the actual movement of the shipment.

COMMISSIONER GAINER: The dollar rate would apply to the non-bulk commodity?

MR. GORDON: Yes, it would apply to all class 5 traffic. While it is the maximum rate for that mileage, it would never be applied by the Northern Transportation Company on a shipment from Waterways to Eushell. I always endeavour in making comparisons to try and get the effective rate, because the others are what we call in traffic work paper rates; they are published but they move no traffic.

COMMISSIONER GAINER: You are now agreeing to use $2.31 in the upper row and $2.49 down below -- future rates?

MR. GORDON: Yes, $2.31 and $2.49, which makes a difference of 18 cents. But what I want to point out, sir ---

THE CHAIRMAN: Before we leave that, to make sure there is no possible misunderstanding, do you feel the same about that, Mr. Guest?

MR. GUEST: The figures, the rates I used are

the basic rates class scale, and I agree they are not the effective rates. The effective rate is the figure quoted by Mr. Gordon, a dollar. That is the general merchandise classification, what they call class 5. I am not in agreement with the rate which may be charged. Mr. Gordon prorated it and it may be much higher than 70 cents. Neither Mr. Gordon nor myself is in a position to say what that rate will be, because it depends on how much of the handling charges the Northern Transportation Company are willing to charge over the reduced mileage involved.

MR. GORDON: That is correct; I simply prorated to get a matter of comparison, and that is the point I wanted tobring up, because in attempting to estimate what rates will probably be in effect on a future movement or on a proposed new line or proposed new movement, it is never possible to take one particular rate between two points and say that that rate will necessarily bear any exact comparison by mileage or any other factor to another rate between one of those points and a third point, because of the fact that in transportation many factors are brought into consideration, competition being one of the chief ones. I attempted to make an analysis of Northern Transportation Company's tariff to the various points of their line to try and establish, on the basis of their special class rate, which is the one I am using and which is the effective rate, as to what basis by rate, the rate of taper, the

increments, they will use, but I found it was impossible to do so because the rates are not constant between any two points; they vary considerably, different from the effective class rates in a railway. You can check those if you know the formula they are based on and you can extend them indefinitely, but I found that was not so with the Northern Transportation tariffs.

So that any time I am discussing rates here, any rates which I am quoting, either over the proposed new line, with the exception of class rates on the new line which we cannot estimate exactly -- but any classification of the new line via Waterways, anything I can do will be the best calculation I can make but will not indicate in any way that that will be the rate which will be effective, because we are not in possession of all the factors that go into the setting of these rates.

But there is one thing, to show the fallacy of attempting to take one rate and adjust it for the mileage on another rate. We established this morning that the rate from Peace Point to Bushell was 194 miles, and I think that is now the accepted basis on which we all agree.

MR. FOUKS: We don't agree. We understand that the Board of Transport actual mileage is 203. Thatis the Board of Transport actual mileage, 203, and that is our understanding.

MR. GORDON: Well, there seems to be a lot

of disagreement, because I have it from another reliable source that it is 168. So I am willing to settle on a basis of 200 miles as an estimated distance and let it go at that and to save this Commission's time.

Now, in referring to the official mileage table of the Northern Transportation Company and taking the distance ---

MR. CLEMENT: Just a moment.

MR. GRIMBLE: We would like to settle these mileage points in case it causes a problem at a later date. The mileage on that map, accurately scaled off from Peace Point to Bushell, is 194 miles. There is no chance of leaving the river; this is the actual river mileage, the actual scaled mileage on the largest scale maps available. This is the actual mileage by river which can't be changed.

COMMISSIONER GAINER: Do those measurements come out the same way?

MR. GRIMBLE: There is no chance of it ever changing; within one per cent, possibly, and I am not aware of the Board of Transport Commissioners publishing a mileage for that distance.

MR. GUEST: It is in the tariff of the Northern Transportation Company. It is from Peace Point to the mouth of the Peace, 67 miles; from the mouth of Peace to Fort Chipewyan, 32 miles, and from Fort Chipewyan to Bushell, 104 miles.

MR. GRIMBLE: In the movements now to Fort

Fitzgerald, of course, in the spring when the water is high this is the channel they use; in the fall they use this channel. They have never hauled to Peace Point, so their mileage is probably based on the spring time, which is to Fitzgerald.

MR. FOUKS: In principle they charge on 203 Isn't that correct, Mr. Feehan? Those are the same figures you received.

MR. GRIMBLE: I don't know if it is on this official mileage chart.

MR. GRODON: It is ---

MR. GUEST: It is on page 16 -- Peace Point to mouth of the Peace.

MR. GRIMBLE: There is no published rate from Peace Point to Bushell.

MR. GUEST: It is a combination of the official mileage.

MR. GRIMBLE: The reason they give this mileage is for movement from Peace Point to Fitzgerald.

THE CHAIRMAN: What is the exhibit number of this map?

MR. BISHOP: It is 52-L, Mr. Chairman.

MR. GRIMBLE: Peace Point ranger station is on the 30th base line, about this point here, and actually our mileage is scaled from the bridge site, which is here.

THE CHAIRMAN: The bridge site is where you have drawn a red line at right angles across the river?

MR. GRIMBLE: Yes. All our mileages are scaled from this bridge site. This is commonly known as Peace Point, where the red dot is, right on the 30th base line.

THE CHAIRMAN: Am I right that if you were going to go down Peace River to the mouth of the Peace you would follow along here?

MR. GRIMBLE: Yes.

THE CHAIRMAN: And that is where the Peace River joins the Slave River?

MR. GRIMBLE: Yes.

THE CHAIRMAN: And then you suggest you have a further mileage from the mouth of the Peace River to Fort Chipewyan?

MR. GRIMBLE: Yes.

THE CHAIRMAN: And it is your suggestion, Mr. Grimble, that you follow down the Peace only to this point and then you follow the other channel, the Catfish channel?

MR. GRIMBLE: Yes.

THE CHAIRMAN: So that if there was tobe a regular flow of traffic between Peace Point and Uranium City, you would follow this?

MR. GRIMBLE: The reason they published it this way is that their mileages are based on the Rochers River channel, but in the fall they don't use that, they use this longer route in the low water period, so in order to conform to the published mileage

on the short route they have given a mileage from Peace Point to Peace Junction, whereas, in effect, they would use this.

MR. GUEST: I had requested the Northern Transportation Company to measure the distance, and the difference is four miles going by Catfish Channel, if they go that way. So there are three different figures now.

MR. GRIMBLE: This is the largest scale map available, and I don't think Northern Transportation Company have this map.

MR. GUEST: Maybe they are wrong.

THE CHAIRMAN: Suppose we leave that and see whether it is significant or not a little later on.

MR. GORDON: I was trying to follow the policy of trying to take the difference between one point and another, the rate, and apply it to either one of the original two or a third point, and in referring to the official mileage table in the Northern Transportation Company's tariff I find that from Waterways to Fort Chipewyan we have a mileage of exactly 200, and when I turn to their rate table, their effective rate table, which we will call their special class rates -- their special local tariffs of class rates applying between points and places in the Mackenzie River area is the correct designation of the table -- and we check the rate from Waterways to Fort Chipewyan for a distance of 200 miles, we find that the 5th class rate is 50 cents for 200 miles.

Now, that rate would have all of the cost factors reflected in it, that the rate from Waterways to Bushell would have or the rate from Peace Point to Bushell. In other words, you would have your same loading, unloading and handling charges of all kinds as well as a line haul. For the sake of comparison as far as what we call terminal costs are concerned, there is nothing different between the two.

Now, if we were to apply that rate to the comparable distance from Peace Point to Bushell which there seems to be some little disagreement on, but it is roughly 200 miles - some say it is four miles less and some say it is three miles more, but for all practical purposes it is the same - we would find the following figures or rates from Edmonto to Peace Point, a rate of $1.46. That is the rate for that distance in the Board of Transport Commissioners class rate section which is applicable all over Canada and would be the rate, providing our mileages are correct and we think they are, and all seem to be agreed on that point. If they apply the 50 cents from Peace Point to Bushell for the same distance as from Waterways to Chipewyan we would get a through rate of $1.96 as against the present through rate as indicated, Edmonton to Waterways $1.07 and Waterways to Bushell of $2.07 which would give us an 11 cents differential. An example like that shows that you just cannot take one rate and apply it to another. The only people who will be able to say

what those rates are or will be are the transportation companies themselves and they will have to get their heads together. If the railway is built at Peace Point they will have to get their heads together and come up with a rate.

The railways in their evidence, although they did not give us a breakdown, said that the rates to Uranium City would be no higher than they are at the present time. I feel from my knowledge of freight transportation, and I have seen many changes in the rate to meet competitive conditions and the last few years have accentuated that, but the railways are improving competition more, more and more. I feel that possibly the railways had some basis for their assumption that the rates would not be higher. I know it could be done. There is plenty of latitude, as we can see, between a rate of 50 cents for 200 miles and a rate of $1.00 for 200 miles which has been suggested. I am quite confident that under any proper system of rate making that there would be no increase in the rates to Uranium City from Edmonton.

Now, also we are making - -

THE CHAIRMAN: Just pausing there for a moment, when Mr. Bishop opened this part of the discussion, I thought he said that the Chambers of Commerce were not taking the same position as the railways, but were taking a different position.

MR. BISHOP: No. What I meant to empha-

size was that the Chambers of Commerce and the City of Edmonton are not holding to the position that when such a rate is struck the railways will realize $600,000.00 from the additional revenue over the operation from Waterways to Peace Point. We do not feel that that statement together with the statement that the overall rate to Uranium City will not be higher, we do not feel those two statements can be reconciled.

THE CHAIRMAN: If the railways get $600,000.00 for hauling freight to Peace Point then you feel that the freight rate to Uranium City must be higher?

MR. BISHOP: Unless Northern Transportation is prepared to haul for $600,000.00 less which we do not feel can be demonstrated. We do not feel that it can necessarily be demonstrated to be impossible, but we certainly are in no position to demonstrate that it could be true or that they would do that. Mr. Gordon's point, I think, here is that in all such cases, other parts of the country and other parts of the world, the transportation companies both rail and water combine. In his words they get their heads together and agree on a combined rate in which they both come down from the short haul rates which would go to make up the total if they were not combined. They can do this because in the case of the railroad the additional mileage, as we have discussed earlier, does not add the same costs to the railroad since the

handling charges do not occur over again and therefore it can charge at less than an equal rate per mile. The same applies to the water carrier. I think Mr. Gordon has shown by reference to the rate for 200 miles from the same - at the present time we have waterways to Chipewyan, that it should be possible for Northern Transportation to haul the 200 odd miles or whatever the figure is, and we are agreed it is in that neighbourhood, from Peace Point to Bushell for something less than the rates they are presently charging from Waterways to Bushell. I do not know whether I cleared up my point.

THE CHAIRMAN: This much I take it is so: you are contending that the freight can go from Waterways to Bushell via Peace Point for the same price as it goes from Waterways to Bushell as it is travelling now?

MR. BISHOP: That is exactly right.

THE CHAIRMAN: Your conclusion is exactly the same as the railways, but you disagree with the railways that they should receive $600,000.00 for hauling from Waterways to Peace Point?

MR. BISHOP: That is right.

THE CHAIRMAN: So you both come to the same conclusion, but for different reasons.

MR. BISHOP: That is right.

MR. GORDON: Now, to show you again what it is possible to do in freight rates I am going to

now refer to the British Columbia brief and their example of rates on sulphur. I am not going to argue in this instance on their rates. They have quoted a commodity rate - that is, I am not going to argue on their present rate. A commodity rate to Edmonton of 70 cents and a commodity rate beyond Edmonton of 70 cents making a total through rate of $1.40, and for their estimated rate they arrive at a rate to Peace Point of 91 cents and their note says:

> "Rail rate based on percentage increase in class 45 rates as a result of an additional 220 miles rail haul, applied to current commodity rate of 70 cents per hundred pounds."

In other words, they take what we in transportation circles call a rate pro-rate on this basis. The barge rates were reduced from 70 cents to 52 cents according to their note "proportionately to reduction in mileage". I again say that we have no sound basis for assuming that those would be the rates.

To give you an example of what railways can and do do in sulphur rates, I would like to draw attention of the Commission to a rate published by the Canadian Pacific Railway from Drywood, Alberta to Vancouver, British Columbia. This rate indicates as follows:

> "Rate claimed in this item is proportional, applicable only on shipment designed to

Crofthill, Harmac, Ocean Falls, Port Alice, Port Mellon, Powell River, Watson Island, and Woodfibre, B.C. Also station s in the States of Oregon and Washington and is exclusive of all terminal charges at Vancouver, B.C."

That rate is 46 cents per hundred pounds. Now, that compares with the present rate from Okotoks to Edmonton of 70 cents for 647.7 miles.

THE CHAIRMAN: How far is the other distance?

MR. GORDON: 778.2.

MR. FOUKS: To Waterways?

MR. GORDON: Okotoks to Waterways as against - those mileages are taken from the official distance table of the Canadian Pacific Railways, W100C which is the official distance table on which all rates are assessed when they are assessed on a mileage basis, and they are accurate mileages to one tenth of a mile. From those two rates would be reasonable to assume that sulphur moving north to Peace Point subject to a degree of competition because the rate to Vancouver was obviously published to meet competition although it is not so flagged, but to meet some competition itis quite obvious that the railways should they so desire could reduce their rate considerably over what is indicated in the British Columbia brief. They are both a rate which are actually a proportional rate, and the through rate of the through movement,

because neither on the railways rate to Waterways nor on the railways rate to Vancouver is the approach used at the railway destination. It is for furtherancing both cases. In the Vancouver rate it is specifically that it must be for furtherance in the Waterways rate. There is no reason whatever why the railway could not reduce their sulphur rates, and I presume they would if necessary reduce that sulphur rate in order to maintain a reasonable rate to Uranium City. I think this Commission or the Board of Transport Commissioners who are charged with maintaining just and reasonable rates on the railway would assume that the present rate is a reasonable rate.

THE CHAIRMAN: What do you mean the present rate is a reasonable rate?

MR. GORDON: I mean the present combined rate from Okotoks to Waterways and Waterways via Northern Transportation, I would assume the Board would take that as a reasonable rate, because it is a rate that is in effect and has been in effect for some time.

THE CHAIRMAN: That is from Okotoks to Waterways and Waterways by water - -

MR. GORDON: Via Northern Transportation.

THE CHAIRMAN: But how does that tie in with a proposed rate from Okotoks to Peace Point?

MR. GORDON: I imagine it would be not too difficult for the railways to lower their sulphur

rate if necessary considerably and also in view of the reduced mileage for the Northern Transportation Company to make some reduction in their rate. I am not suggesting what the reduction should be made by either party, that is something they will have to decide themselves, but I feel, having watched the adjustment of rates over many years that the transportation companies could do so without any difficulty and in the event that it was deemed advisable to transship at Peace Point I feel that it would be done.

THE CHAIRMAN: Mr. Gordon, I can see how it is that two railway companies, one operating between Drywood and Vancouver and another operating from Okotoks to Waterways could be in a very different position from a railway company contemplating building a new railway from Waterways to Peace Point. For instance, the railway now going from Drywood to Vancouver has been built for many years and there is a steady volume of freight going over it and presumably it is paying its way or almost paying its way because otherwise they would have discontinued their service. In order to have competition they can take on increased traffic at a pretty low rate, but perhaps it would not justify the building of a new railroad.

MR. GORDON: Well, to reduce these two rates to a factor which is possibly a little more easily understood as to comparison, the rate from Drywood to Vancouver is 1.2 cents per ton mile.

THE CHAIRMAN: That is Drywood to Vancouver?

MR. GORDON: 1.2 cents per ton mile.

THE CHAIRMAN: Yes.

MR. GORDON: Their rate from Okotoks to Waterways net railways 2.47 cents per ton mile. The average ton mile rate for western Canada movement of sulphur is 2.37 cents per ton mile.

THE CHAIRMAN: Average rate for western Canada?

MR. GORDON: Western Canada.

THE CHAIRMAN: Is how much?

MR. GORDON: 2.3 cents per ton mile.

THE CHAIRMAN: Yes.

MR. GORDON: So there is some margin for the railways to go down on the Waterways rate without coming below their average.

THE CHAIRMAN: But to build a new railway - put it this way, if a new railway is to be built from Waterways to Peace Point, could that new railroad afford to carry sulphur or anything else at the average rate as the railroads already established, and also earning an income.

MR. GORDON: Well, on the basis of a through rate because this would essentially be a through rate, it would depend to a large extent under what auspices the new railway was built, whether it was an extension of the present Northern Alberta

railway or whether it became a separately incorporated railway company. That position would have some bearing on the results of their rate structure. It has been demonstrated on additional construction in railways and an example is the Lynn Lake line of the CNR, the Kitimat line of the CNR. There are many commodity rates published over these two which I know of and the same is true over other extensions, railways which maintain the normal level of rates which are charged on the other existing railways.

THE CHAIRMAN: What rate would you suggest that railway might charge for its sulphur from Waterways to Peace Point? How much a ton mile?

MR. GORDON: I would hesitate to make an estimate because I am not in full possession of all the facts which the railways would have in weighing that particular thing. I can estimate very closely what the railways will offer me on asphalt rates which I am familiar with and understand, but sulphur is a factor I am not too familiar with. It has a very restricted movement although a large volume to restricted point, and I have not had an opportunity to compare sulphur rates at the present time and I would hesitate to state a definite factor.

THE CHAIRMAN: Did not Mr. Bishop take the position that he assumed that the total charges for freight going from Waterways to Peace Point and on to Uranium City would be at least as low as Northern

Transportation charges?

MR. BISHOP: That is right. I was going to ask if in your recent questions you were not pre-supposing that a railway can be built there or along any of the routes to Great Slave Lake which could hope to pay for itself or pay its charges. Unless you presuppose that you do not have a valid basis for comparison when you ask whether this new railway can afford to carry sulphur at reduced rates.

THE CHAIRMAN: There may be a lot to that and perhaps my questions are not relevant at this stage, but I am interested in pursuing this question of how you calculated that the freight can go to Uranium City at a price at least as low. I would like to see how the calculations are made.

MR. BISHOP: I am not a freight rate expert, but I think it simply boils down to this: when getting into the proposition that there is at the present time a rate in being on sulphur or any other given commodity to Uranium City, if and when a railway is built to Peace Point and a new route of transportation made available by rail and by barge the Board of Transport Commissioners would set the rate to be charged and in view of past experience elsewhere the rate they would charge would be what they considered a fair rate and a fair rate would be the rate that has been charged over the years.

THE CHAIRMAN: What is that rate?

MR. BISHOP: In the case of sulphur it is the 70 cents from Okotoks to Waterways and a further 70 cents from Waterways to Bushell.

THE CHAIRMAN: You consider it would be - just a minute, let us stay with the railway for a moment. How much will it cost to go from Okotoks to Peace Point.

MR. BISHOP : That was my original point. We do not feel that we can establish a figure because in such a case the Board of Transport Commissioners would, I understand from Mr. Gordon, from his experience, they would leave it to the railroad and the Northern Transportation to agree on a division of the charges to reach the total rate set by the Board of Transport Commissioners which we are assuming would be the same as the one presently in force. If they do not reach an agreement then in such case the Board ordinarily sets a division, but that appears to be the case, that appears to happen in very few cases. In almost every case two carriers or more carriers,if there are more involved, determine the split in the charges among themselves. I also understand on such occasion they, that is the division of the charges is not made public even to the Board of Transport Commissioners.

THE CHAIRMAN: Or even the Chambers of Commerce?

MR. FOUKS: My information maynot be correct, but I understand the NAR does not come under the Board of Transport.

MR. GORDON: That is incorrect.

MR. FOUKS: It is? That is fine.

THE CHAIRMAN: We know how much sulphur went in there last year, was it not 12,000 tons?

MR. GORDON: 27,000 tons.

THE CHAIRMAN: 27,000 tons of sulphur to Uranium City last year?

MR. BISHOP: 27,432½ to be exact.

THE CHAIRMAN: And what does that travel at, what price?

MR. GORDON: At a total through rate of $1.40, made up of 70 cents to the railway and 70 cents to the Northern Transportation Company.

THE CHAIRMAN: So it costs 70 cents to go from Waterways to Uranium City?

MR. GORDON: Yes, to Bushell.

MR. FEEHAN: Sir, the rates quoted I have here are 60 cents from Waterways to Uranium City. At $12 a ton it would be 60 cents per hundred pounds, and these are the rates which are actually in effect at the present time.

MR. GORDON: Here is the official tariff for the Northern Transportation Company, which is their tariff No. CTC 47. It is a single-paged tariff. The rate from Waterways, Alberta, to Bushell, Saskatchewan, the rate in cents per hundred pounds, is 70 cents.

MR. FEEHAN: Sir, they are charging $12 a ton. That is my information.

MR. GORDON: This tariff, incidentally, was effective May 1st, 1959.

THE CHAIRMAN: Where did you get your information?

MR. GORDON: I took it right from here. That is their official tariff. That is their tariff which is filed with the Board of Transport Commissioners.

THE CHAIRMAN: What is the 4000-odd tons?

Are they long or short?

MR. FEEHAN: There is no distinction here. I assume, sir, they would be long tons.

MR. GORDON: I don't know how they will be on the open market, but on the railways, unless otherwise specified, it is 2,000 tons. Of course, the rate is quoted in cents per hundredweight.

MR. BISHOP: Mr. Chairman, could it be $12 a short ton, which would be a 60-cent rate? Before lunch Mr. Gordon was reading the tariff and referred to the fact that in shipments of over a certain size there is a 10-cent deduction.

MR. GORDON: That is only on class rates.

THE CHAIRMAN: Could we adjourn for five minutes and somebody phone Northern Transportation? Mr. Feehan, could you do that?

MR. FEEHAN: Yes, sir.

THE CHAIRMAN: Could you find out the tonnage that went in last year?

MR. FEEHAN: I have the figures here. From Waterways to the Lake Athabasca area, general cargo, 2,906 tons; bulk petroleum, 302 tons, making a total for the Lake Athabasca area of 3,208.3 tons.

Waterways to Bushell, general cargo, 25,736 tons; bulk petroleum, 39,127 tons; bulk sulphur, 27,432½ tons.

THE CHAIRMAN: How do you distinguish between the Lake Athabasca area and Bushell?

MR. FEEHAN: I imagine that includes the Fort Chipewyan area and other parts in the Lake Athabasca area. There is some 3,000 tons went into other places than Bushell.

THE CHAIRMAN: Would you give us those other figures?

MR. FEEHAN: General cargo, 25,736.

THE CHAIRMAN: That is general cargo to Bushell?

MR. FEEHAN: Yes. Bulk petroleum, 39,127 tons, and bulk sulphur 27,432 tons. That is all from Waterways, sir. Then there is information here of 7,000 tons coming from Peace River of lumber, but the total would be 93,000 tons, approximately, plus an additional 3,000 tons to the Athabasca area or approximately 96,000 tons during the year of 1958.

THE CHAIRMAN: Can we adjourn for five minutes while you get that.

---Short recess.

THE CHAIRMAN: Are you ready now, Mr.Feehan?

MR. FEEHAN: I am, sir.

THE CHAIRMAN: Mr. Gordon, during the adjournment you tried to get in touch with Northern Transportation.

MR. GORDON: I didn't; I believe somebody did.

MR. FEEHAN: I did. I was unfortunate not to be able to get them .

THE CHAIRMAN: I think it was you, Mr.Bishop, who said before we adjourned that you were assuming that the sulphur would travel from Waterways to Bushell via Peace Point at 70 cents a ton.

MR. BISHOP: No, Mr. Chairman, I said we were assuming that the sulphur would travel from Okotoks to Bushell via Peace Point at not more than $1.40, which is the present combined rate.

THE CHAIRMAN: Tell me why you assume that.

MR. BISHOP: Well, because it is the equivalent of a competitive rate. The rates to be charged will be set by the Board of Railway Commissioners, and the rate that they would set would be the rate that they would assume tobe a fair rate. The only hardstick they have at the moment is the present rate, the rate that has been in force for many years, and our assumption, based on similar situations elsewhere in Canada, not necessarily similar as to the particular product or mileage, is that they would set a rate, an overall rate, that would be the same as the one presently in force and that they would order the carriers to endeavour to reach, by agreement, a division of that rate that was satisfactory to both of them,and that if the carriers did not reach an agreement, then the Board of Railway Commissioners would set the rate, set the division of the rate in a manner that they thought was fair. But, as I pointed out before, apparently experience shows that in very few cases do the carriers fail to reach an

agreement under these circumstances, probably because if they reach an agreement on the division, the division that is determined by agreement between the two of them doesn't necessarily have to become public and does not necessarily have to be filed with the Board.

Mr. Gordon can say whether I am right or not.

MR. GORDON: I am not assuming that the Board would necessarily order a joint rate, but I think I would be correct in my assumption that if, because of a change in transport points, the rate went up, there is no question whatsoever that the consignee and the shipper would certainly register a complaint with the Board of Transport Commissioners, and I am quite sure that the Board of Transport Commissioners would instruct the carriers to publish a fair and reasonable rate, and I think Mr. Bishop's assumption is correct, that the present rate would be a fair and a reasonable rate. But we are only trying to figure what somebody else is going to do. During the adjournment ---

THE CHAIRMAN: Let's pause there for a moment. You are assuming that the Board of Transport Commissioners would not permit a higher rate, but the distance is considerably greater. Now, what you are saying seems to me is this: we have come to the conclusion that the rate won't be any higher just because we are assuming that the Board of Transport Commissioners won't permit it to be any higher.

MR. BISHOP: I think that is somewhat of an

over-simplification. We have not mentioned, although we intended to deal with them later, various savings that we feel can be made with the use of the Pine Point route. Unfortunately, it is very difficult to put a dollar value on them; we don't have access to the cost accounting of Northern Transportation, and it is doubtful whether their cost accounting is sufficient to tell them just what their costs are on any portion of their various routes.

THE CHAIRMAN: Mr. Bishop, let's come back to distances. Certainly, if you are taking anything from Okotoks to Uranium City, it has all got to go from Okotoks to Uranium City.

MR. BISHOP: Yes. I was going to follow up by saying that the distance that the product travels before it reaches Waterways makes a considerable difference.

THE CHAIRMAN: What is the distance from Okotoks to Uranium City by the water route that is now being used?

MR. GORDON: 798 miles; 525 from Okotoks to Waterways and 273 miles beyond.

THE CHAIRMAN: Now, Okotoks to Waterways is 525 miles. How much is it from Waterways to Peace Point?

MR. GORDON: And, incidentally, sir, my check of the distance from Okotoks to Waterways was 647.7 . I would like an opportunity to recheck that

before I quote it officially. I didn't make the check myself; I asked one of the clerks to check the mileage, and that is what he gave me.

MR. GUEST: Mr. Chairman, Major Charles gave the distance, I think, as 225 miles from Waterways to Peace Point. It is 5 miles more than we had it, so it would be 750, using his figures.

THE CHAIRMAN: Is there any doubt about the distance from Waterways to Peace Point? What do you say that is, Mr. Gordon?

MR. GORDON: Well, I think we have all been working on the official distance of the Northern Transport Company, which is 273 miles.

THE CHAIRMAN: That is from Waterways to Uranium City?

MR. GORDON: Yes.

THE CHAIRMAN: What I would like to have is from Waterways to Peace Point.

MR. GUEST: Major Charles used 225 and we used 220. We are prepared to accept his figures, because we just scaled it off the map.

THE CHAIRMAN: That is 945 miles, isn't it?

MR. GORDON: Yes.

THE CHAIRMAN: Are you happy about that figure, Mr. Bishop?

MR. BISHOP: I think so, Mr. Chairman.

THE CHAIRMAN: So the way the sulphur travels now is a distance of 798 miles; isn't that so?

MR. BISHOP: Yes, that is right, Mr.Chairman.

THE CHAIRMAN: The way you would like to have it travel is 945 miles?

MR. BISHOP: That is right, Mr. Chairman.

THE CHAIRMAN: And if you are assuming that the Board of Railway Commissioners is going to save you the money for the extra mileage, it would be carried at the same price?

MR. BISHOP: I think, Mr. Chairman, that is not an unnatural assumption, because it has happened in other places. Taking what I would think would be hypothetical cases, but certainly would put an ultimate limit on the rates that could be charged, the building of a railway would not of itself guarantee that Northern Transportation would have to move from Waterways, in which case, of course, the rates would be exactly the same as they are now. So unless there is to be an advantage to the shipper or an advantage to Northern Transportation through lowered rates, the present situation as far as Uranium City is concerned would stay the same or could stay the same.

THE CHAIRMAN: Are you basing your submission on the fact that Northern Transportation will continue to keep their services available between Waterways and Uranium City?

MR. BISHOP: No, we are not, Mr.Chairman; only to this extent, that we feel that that is -- I can't think of how I want to express myself -- the present rate by

the present route must be the ceiling of cost to Uranium City, otherwise the move would not be made. We feel from other factors we have not gone into yet-- they are engineering factors -- we feel they would provide considerable savings. One would be the cost of dredging the Athabasca, and there are other savings which we feel would make it worth while to move.

THE CHAIRMAN: If you are going to assume that it is effective, then you are assuming there is no waterways available from Waterways to Uranium City.

MR. BISHOP: There would still be a service available at high water.

THE CHAIRMAN: You are assuming that the dredging will be discontinued, are you, in your calculation?

MR. BISHOP: Calculation, I would say, is the wrong word, for the simple reason that most of the savings we can't calculate as to dollar value, and if the savings at that stage or any different stage, the apparent probable savings as a result of the detailed studies which would undoubtedly be made, were large enough, then Northern Transportation would move to Peace Point and would do so if, economically, it could do so and maintain the rates or as cheap rates to Uranium City; and we feel satisfied that the Board of Transport Commissioners would set a rate; if Northern Transportation were to move from its present situation, the combined rate which would be allowed to Uranium City would not be allowed to be more than the

present rate. In other words, in effect, part of the application to the Board of Transport Commissioners would be permission to move from Waterways to Pine Point and set rates, and the Board of Transport Commissioners, I submit, obviously would not give permission to move and set rates which were going to create greater costs for the shippers in Uranium City. Therefore we come back to the question of the probable engineering savings from the Pine Point route, and at that stage, if they are large enough, or, alternatively, if the railway and Northern Transportation are willing to shade their charges enough so that they carry the product the extra 145 miles, or whatever it may be, for the same rate, then the move would be made to Pine Point.

THE CHAIRMAN: Well, I caused you to digress from what you were going to tell us. Were you going to go on now to the question of engineering savings that would be made?

MR. BISHOP: Yes, Mr. Chairman. I was going to ask Mr. Grimble to enlarge on that.

MR. FEEHAN: Sir, I wonder if I might just ask Mr. Gordon a question. He gave us an average figure, per ton mile figure, for the shipping of sulphur throughout Western Canada. I wonder if it would be fair to say that this average figure might be used on the extension of the railway.

THE CHAIRMAN: I know I would like to get back to these matters we have been talking about, Mr.

Feehan. Would you come back to it later on?

MR. FEEHAN: Yes, sir.

THE CHAIRMAN: Then Mr. Grimble is now going to tell us about the engineering savings, is he?

MR. BISHOP: That is right, Mr. Chairman.

MR. GRIMBLE: I may say that what we visualize as the dredging on the Athabasca would be discontinued, and this dollar saving would be effected to the Government. There is still this competitive element, that if a combined rate wasn't equal to the present rate there is still the recourse of using the high water period in the Athabasca. I was going to review the problem of operating on the Athabasca as it relates to the dredging and other factors.

I would introduce it by reading a few extracts from various publications. One is from the Navigational Aids, from a conference on Water Trans-Portation and Related Problems along the Mackenzie Waterways, meaning from Waterways itself right through to the Arctic, and this conference dealt with the Athabasca area.

"Water levels on the Athabasca River, for distance of 120 miles north from Waterways and in the area where the Athabasca river enters Lake Athabasca, create the greatest problem to navigation. Following breakup early in May, and for a period extending through to about August 15th, water levels in the Athabasca River are

usually such that barge drafts can be maintained between 3'6" and 4' and, then, dropping off from that time until the close of navigation when barges cannot be loaded over 30". There is considerable variation in the water levels encountered in the fall but, as a rule, the load factor drops about 50 per cent from early in September through to the close of navigation; loss of time, through tows grounding during this period, is quite high."

I might read from a letter from Northern Transportation Company -- I might add they have done some dredging and improvements since 1955 -- and this is a 1959 letter.

THE CHAIRMAN: Do these improvements relate to the 120 miles north of Waterways and the delta?

MR. GRIMBLE: Yes, they include conditions in the 120 miles, and then there is a gap of good navigation and then the delta has been improved, too.

This is a letter of 1959 from Northern Transportation Company.

"The maximum draft on the Athabasca River during high water conditions is approximately five feet. The maximum draft during extreme low water is two feet, six inches. This variation in draft produces a reduction of at least fifty per cent in the tonnage handled per trip. The barges are so constructed that, after loading has proceeded beyond a certain point, it requires

a greater tonnage to effect an inch of displacement than it did during the early part of the loading. At the same time the low water condition exposes numerous sand bars over which we were able to pass in high water and so reduces our sailing time. This fact coupled with the necessity of having to tie up our vessels during periods of darkness in the fall cuts back our trip times by as much as fifty per cent or more."

Now, I would like to read from a few Northern Transport Company's annual reports in regard to this same matter.

In 1951 -- this is an extract from the report -- it says:

"However, while it is possible to transfer some vessels from the northern section of the route" --

that is from the Mackenzie --

"to the Waterways-Black Bay run, the low water levels prevailing on the Athabasca River do restrict very greatly the Company's ability to arrange the maximum utilization of floating equipment. Equipment designed for most effective use in the Slave River, the Great Slave Lake and the Mackenzie River cannot be used in the Athabasca River where water levels late in the season are sometimes as low as

24 inches."

Now, I might go to the 1952 annual report.

"However, the need for maintaining frequency of service for points north of Fort Smith and the fact that the vessels in that operation cannot be used in the shallow waters of the Athabasca river prevent any extension of this policy. It seems apparent that any further increase in traffic between Waterways and Bushell . . . will necessitate the acquisition of new floating equipment."

Now, the 1953 report:

"High water levels especially on the Athabasca River prevailed during the entire season. This condition made it possible to operate heavier tows out of Waterways."

1953 was a good year. 1954:

"Abnormally high water conditions prevailed during the entire navigation season. This contributed greatly to the efficiency of the operation since it was possible to utilize barges at close to maximum carrying capacity. For example, the average tow out of Waterways carried 513 tons as compared with 440 tons in 1953."

This was the previous year which also was a high water year, a good year.

Now, I go to the 1955 report:

"Last year the report stated that abnormally high water levels have contributed to the

increased efficiency to the operation of 1954. During 1955, operations were hampered by low water levels during the latter part of the navigation season. The low water levels particularly on the Athabasca River reduced severely the carrying capacity of floating equipment. Under normal water conditions, barges moving out of Waterways can be loaded to capacity. In the latter part of the 1955 navigation season, it was necessary to reduce loadings to 50 per cent of capacity. As a result of this and late deliveries of freight to the Company's terminal at Waterways, some 5,000 tons of freight were left undelivered at the end of the season" -- at Waterways. "While the company is able to maintain its operations with the assistance of dredging when abnormally low water conditions prevail, dredging does not make a significant contribution to the solution of the loading problem. Water level records indicate that low water conditions may be expected to prevail on the Athabasca River during the latter part of every navigation season. Consequently, to the extent that it is possible, it is desirable that the bulk of the freight shipments be handled in the early months of the navigation season if deliveries are to be assured."

1956:

"Whereas low water levels had in 1955

severely reduced the carrying capacity of floating equipment particularly on the Athabasca River, during the past year water levels were somewhat above average."

1956 was better than 1955.

1957:

"Water levels in 1957 on the Athabasca River during August and September were lower than during the seasons 1956 and 1955 and for this reason tows out of Waterways averaged 748 tons in 1957 as against 826 tons in 1956."

Now, I might compare in 1955 the operations during the month of July and the month of September just to give you an indication what effect this has.

THE CHAIRMAN: What reports are these?

MR. GRIMBLE: These are the annual reports of Northern Transportation.

THE CHAIRMAN: Are they published by the Northern Transportation?

MR. GRIMBLE: Yes, sir. We will make these available if you like. In fact, we intended to make these all available to you.

Now, I might compare what it means in terms of operations for a year when you have low water and compare the month of July and, say, September. In July they handled 31 tows; in the month of September they handled 25. In the month of July they handled 62 barges, and in September they handled 51 barges.

The average load per barge in July was 348 tons; in September it was 230 tons. The average load per tow in July was 657 tons, and the average load per tow in September was 470 tons.

To summarize it all, in July, with the same equipment, they handled 20,373 tons, compared to 11,740 tons in September, and we must remember that that was the year when the 5,000 tons was left on the dock.

THE CHAIRMAN: You are assuming that they are travelling at full capacity at that time.

MR. GRIMBLE: I am assuming that they are trying their hardest to get rid of this traffic.

-

-

-

-

-

COMMISSIONER GAINER: Is not the closing date on navigation before the end of September? Do they not set a deadline?

MR. GRIMBLE: The published closing dates for that year - - they are mainly for convenience to make sure people get their freight to Waterways on time. I have here the published closing dates for a typical year.

COMMISSIONER GAINER: I do not want to put you to the trouble of getting the figures. What I am getting at is, would there not be a factor in there to closing off before the end of the month so as not to get caught down-river. Is September comparable to July on the basis of water levels alone? Might some of the tonnages be cut off because they did not want to be caught?

MR. GRIMBLE: The reason I used this particular period was because they had 5,000 tons on the docks and in September there was always a back-log. This year, for instance, the last barges left yesterday, and that is the last trip out of Waterways for this year. In 1958, the scheduled sailings, the final trip leaves Waterways September 22. That is what they publish and give to everybody. Movement to Gunnar, all movements were scheduled to be in there by September 22 in 1958. This was distributed to all shippers to advise them to have their cargos to Waterways on September 22. So in a normal year

the full month of September was involved in getting it out. This was a good year.

THE CHAIRMAN: Have they had to reduce their loads there this year?

MR. GRIMBLE: This has been a good year and only in August did they resort to a three foot draft. An unusual thing can happen. This year we had a lot of rain, as you know, and the river level came up in September. A very unusual happening. You might note in 1955 they pushed transportation to the limit to get these 5,000 tons out and they handled 9,413 tons in October.

COMMISSIONER GAINER: Are these tonnages you are quoting now all down-river or just destined for Lake Athabasca?

MR. GRIMBLE: This is all the tonnage out of Waterways.

COMMISSIONER GAINER: I thought shipping down the Mackenzie was cut off about the middle of September.

MR. GRIMBLE: A particular point down the Mackenzie from this published cut-off date - take Great Bear Lake, they say the first barge leaves May the 26th with continuous service throughout. One leaves Waterways August 18 and the final trip leaves Waterways August 11. You are quite right in saying this traffic we are considering to get out in September is all for Lake Athabasca.

COMMISSIONER GAINER: But they are operating as rapidly as they can for the Lake Athabasca trade even though they are not now accepting shipments during September for the Mackenzie River?

MR. GRIMBLE: Yes. The reason I took this year was it would eliminate the problem of perhaps just being there and sitting back in September.

THE CHAIRMAN: Were you going on to another point? I would like to ask something about 1955 before you leave it.

MR. GRIMBLE: Very well.

THE CHAIRMAN: Have you their statement of what the total tonnage is out of Waterways for that year?

MR. GRIMBLE: 85,233 tons.

THE CHAIRMAN: Total tonnage 85,233. Have you a statement there as to what went to Uranium City?

MR. GRIMBLE: In 1955 there were 63,000 tons for Bushell and Gunnar.

THE CHAIRMAN: Can you give us a breakdown of the months when that was hauled.

MR. GRIMBLE: I can only proportion it out. I have the tonnage for each month for the total movement down-river - this is only down-river tonnages - I have them for each month, but this is the tonnages to other points. There are 63,000 tons to Lake Athabasca and we hauled 85,000 tons so the remainder would have gone to other locations.

THE CHAIRMAN: Let us get the tonnages.

MR. GRIMBLE: The month of May, 9,000 tons. The reason for this is the late start in May.

THE CHAIRMAN: June?

MR. GRIMBLE: June,16,262 tons; July, 20,373 tons; August,18,241 tons; September,11,740 tons; October, 9,413 tons, for a total of 85,233 tons.

THE CHAIRMAN: During the month of May did they have any trouble with low water?

MR. GRIMBLE: They would probably start May 15, so that would probably represent half a month because they did not start out of Waterways until the middle of May. That is why the figure is 9,000. I doubt whether they would have trouble in June either.

THE CHAIRMAN: No low water in May?

MR. GRIMBLE: June or July.

THE CHAIRMAN: What about August?

MR. GRIMBLE: It could be. This year was low water in August - 1959.

THE CHAIRMAN: I am just wondering what proportion of that tonnage had to struggle with low water.

MR. GRIMBLE: All of September had to struggle with low water. That is why I took these two as an indication of low water and high water movement.

THE CHAIRMAN: Would you say all or half of August?

MR. GRIMBLE: I could not say, but we can get the records from 1955 and we can show you a graph of them.

THE CHAIRMAN: Might it not be interesting to see how much of that tonnage had difficulty with low water? In other words, to calculate what proportion of the tonnage is carried at the extra cost that is involved in struggling with the low water?

MR. GRIMBLE: We could make up a graph of the gauge readings. The Northern Transportation Company have a gauge reading in front of their dock to show how much they can load their barges.

THE CHAIRMAN: How did 1955 compare with other years? Was it average or better or worse?

MR. GRIMBLE: It is the worst year. All these annual reports that I took out illustrate the problem of low water. These are all reports that are available for me and I just took all the annual reports - -

MR. FOUKS: The worst year in what, profits?

MR. GRIMBLE: No, navigation.

THE CHAIRMAN: The worst year over what period?

MR. GRIMBLE: From 1951 to 1958 and you can include 1959 because this has been a good year.

THE CHAIRMAN: In 1959, do I take it they have had no trouble with low water?

MR. GRIMBLE: Only in August, for the one

month of August they had trouble with low water.

THE CHAIRMAN: When you have trouble it means extra expense?

MR. GRIMBLE: I have all the gauge readings for all of this year if you are interested in it.

THE CHAIRMAN: I am not at the moment. I would like to see how the other works out.

MR. GRIMBLE: They had trouble this year from August 3rd or 4th to August 26th.

THE CHAIRMAN: Would you make this calculation? Do you think you could make this calculation as to how much of Northern Transportation's costs are to be attributed to low water or see if we can come to some conclusion as to how much their cost would be reduced from McMurray or from Waterways? How long their freight from Waterways to Uranium City if they did not have any low water trouble.

MR. GRIMBLE: You just want to deal with this one single factor?

THE CHAIRMAN: Yes, because there has been so much talk about low water problems and the extra cost, that might give us some ideas as to all the savings that would be made if you were to haul from Peace Point to Uranium City.

MR. GRIMBLE: We would have to make certain estimates, but we could get a very rough figure for you.

THE CHAIRMAN: Is there any difficulty

with low water anywhere between Peace Point and Bushell?

MR. GRIMBLE: No sir, this is unlimited practical navigational draft.

THE CHAIRMAN: 5 feet or anything they want?

MR. GRIMBLE: I think an extreme low period would probably be seven feet.

THE CHAIRMAN: So their minimum is always better than - at the worst, the minimum is better than Athabasca's best?

MR. GRIMBLE: That is right.

COMMISSIONER THOMSON: Are profits for the Northern Transportation published for the year 1955?

MR. GRIMBLE: Yes, sir.

COMMISSIONER THOMSON: Could you give me those?

MR. FOUKS: $466,450.00 .

COMMISSIONER THOMSON: That is for handling how many tons of freight?

MR. FOUKS: They do not give it here.

COMMISSIONER THOMSON: 85,233 and what about 1958?

MR. FEEHAN: I can run down from start to finish and give you the tonnages if you wish.

COMMISSIONER THOMSON: We have that figure available. 1955 was a bad year and give us what was a good year.

MR. FEEHAN: 1955, $466,450.00.

MR. FOUKS: That is the highest profit they ever made.

MR. GRIMBLE: That is after Income Tax, the highest profit was last year, $700,000.00.

MR. FEEHAN: 1956, $380,000.00.

MR. FOUKS: Before you go any further, there are two other factors that are important at this point. The freight earnings were up for 1955 ten per cent and the cost of operation during the high water, their expenses were up 20 per cent approximately.

MR. GRIMBLE: Just think what their profits would be if they had not had the problem of transporation.

MR. FEEHAN: 1956, you have $380,000.00 and the tonnage was 115,528 tons.

COMMISSIONER THOMSON: Was that a good or bad year?

MR. FEEHAN: That is the best year.

COMMISSIONER THOMSON: Was that a high water year?

MR. GRIMBLE: That 1956 was a good year. 1955 and 1956 were good years - I am sorry, 1956 and 1957 were good years.

COMMISSIONER THOMSON: Just give us in terms of low and high water.

MR. GRIMBLE: 1956 and 1957 were good years.

COMMISSIONER THOMSON: 1955 was a low

water year?

MR. GRIMBLE: Yes.

COMMISSIONER THOMSON: 1955 was a low water year?

MR. GRIMBLE: Yes.

COMMISSIONER THOMSON: And the figure you gave us there?

MR. FEEHAN: $380,000.00 in 1956.

COMMISSIONER THOMSON: That was a good high water year?

MR. GRIMBLE: Yes, a good year.

THE CHAIRMAN: Any low water at all in 1956?

MR. GRIMBLE: The annual report paints it as a pretty good year. Water levels were somewhat above average in 1956.

THE CHAIRMAN: Any low water in 1957?

MR. GRIMBLE: It shows in the annual report that it was somewhat lower than 1956.

COMMISSIONER THOMSON: According to these figures they made a much bigger profit in the low water year than the high water year. Did they change their rates?

MR. GRIMBLE: These are not significant because of the fact that in 1955 the DEW Line was in full swing and that is the high profit traffic for Northern Transportation. The Arctic is the high margin profit for them and any year the DEW Line has a

heavy traffic you find their profits jumped. Just plot this and you will see a fairly steady increase in 1955 which is due to the DEW Line.

THE CHAIRMAN: It has been going up ever since?

MR. GRIMBLE: It is a steady rise, it bumps up in 1955 and then a steady rise since.

MR. FOUKS: Are you talking about profit?

THE CHAIRMAN: No, freight.

MR. FOUKS: Profit is actually the other way for 1955, it starts to decline.

MR. FEEHAN: Are you interested in the other years?

COMMISSIONER THOMSON: No, I just wanted a couple to compare.

THE CHAIRMAN: Let us take 1957 and 1958.

MR. FEEHAN: 1957 shipped 97,000 tons for a profit of $401,000.00. 1958 shipping, 99,000 tons with a profit of $247,000.00.

THE CHAIRMAN: What sort of a year was 1958 with regard to water?

MR. GRIMBLE: 1958 and 1959 were good years.

COMMISSIONER THOMSON: And 1957?

MR. GRIMBLE: It was lower in 1957.

COMMISSIONER THOMSON: But not as low as 1955?

MR. GRIMBLE: No.

MR. FEEHAN: I might say that all of those figures, the gross figures I gave you include some 7,000 tons of lumber which came out of the Peace Point area. There is 7,000 tons in each year which was not shipped from Waterways, but from around Peace Point, from the lumber areas.

MR. GRIMBLE: I have not studied the profit picture, but as an engineer it seems to me if it costs more to operate the profits would be bigger if you did not have a problem of operation. There is one thing on the profits, the Income Tax varies so much and I think we should be comparing profits before Income Tax. It is significant to me that the highest gross profit of $700,000.00 was obtained last year and yet the net profit is so low, $247,000.00. The highest gross profit before Income Tax was last year at $700,000, and yet the net profit is $247,000.00.

COMMISSIONER GAINER: Is this an Income Tax reserve or an actual tax?

MR. GRIMBLE: Well, bookkeeping is not in my line, but as an engineer I think if you can - you reduce your trouble, you operate and have no problems in any particular year, then you would have a greater profit. I do not have to look at the profit and loss statements to say this.

COMMISSIONER GAINER: You might have lower costs. I suppose it depends on the revenue picture.

MR. GRIMBLE: Yes. There are other variables, such as where is the traffic going? Is it going to the Arctic, is it going to Bushell? There are so many variables here.

COMMISSIONER GAINER: Can you give us any information on Gunnar's barging operation? They are barging out of Waterways, are they not?

MR. GRIMBLE: I understand there barge movements are mainly sulphur and oil out of Waterways.

COMMISSIONER GAINER: Do they use the same type of equipment?

MR. GRIMBLE: Yes, the same type of equipment.

COMMISSIONER GAINER: Steel barges?

MR. GRIMBLE: Yes, steel barges. They have the same problems as Northern Transportation.

THE CHAIRMAN: Do you have the profits before taxes are computed?

MR. GRIMBLE: Mr. Bishop is getting them out.

MR. FOUKS: Have they had bad years?

MR. GRIMBLE: They have had bad years, and every month or two they have a bad period.

COMMISSIONER GAINER: What would you say is the effect the dredging operation has had on the gauge readings?

MR. GRIMBLE: The improvement in the delta has improved the problem considerably, and now they are correlating the gauge readings on the Athabasca River so that they are not caught short. They have this problem pretty well beat by checking with Athabasca Town, and this gives them two days' notice, based on their anticipated drafts.

COMMISSIONER GAINER: Is there anything on their tonnage figures, of their average load a tow? Does there seem to be evidence of a higher loading factor since that time?

MR. GRIMBLE: During high water periods this was not a factor, but dealing with the low water periods, one of the critical things is the rock cuts, and dredging doesn't help this. This is a limiting factor, and with the dredging they have had, the high expenditure on dredging, they have still had the limiting factor of rock cuts, and this year they were down to a 3-foot draft.

The Harbours and Rivers Department are very otpimistic that they can maintain a 3-foot draft. This year theyhad a 3-foot draft, and this was a good year.

COMMISSIONER GAINER: That would compare with about 2 feet 6 inches in earlier years?

MR. GRIMBLE: Yes. In a good year they had that.

I might read from the Harbours and Rivers

resume which has some features of this.

"The Department of Public Works advised that the survey planned for this winter to determine whether the rock cuts were filling, would be expanded to determine the cost of widening and deepening the rock cuts to meet presentday requirements. It was pointed out, however, that work in these cuts would be costly and unless carefully planned, would possibly interfere with movement of traffic through this area, since it was unlikely that all work could be carried out during the non-navigation season."

As far as the delta is concerned, here are a few comments. This is the 1958 conference last fall.

"The Department of Public Works stated that a close watch would be kept on the channel through the Athabasca River Delta. It was known that maintenance dredging would be required through this section; the extent, however, will not be known until it has been in use for several more years.

"The operators expressed an opinion, as stated in their report, that the present dredges on the river are too small and recommended a dredge of considerably more capacity."

They have two dredges now; one a 10-inch and one a 12-inch, hydraulic dredges. There are now two hydraulic dredges, one 10-inch and one 12-inch, as

well as a new snag boat.

"Dredges are operating with a single crew on unlimited overtime. It was felt that operating under these conditions all planned and essential work could be kept well in hand."

But I should emphasize that their idea is a 3-foot draft; they are very happy if they get a 3-foot draft. The navigation companies prefer 5-foot minimum but there is a difference of opinion there. They think an ideal situation is a 5-foot minimum draft, which they have in high water periods.

COMMISSIONER GAINER: As a matter of getting services integrated, what would it take, what sort of draft would it take so that a river barge could operate safely on the lake? Is there any possibility of getting a deep draft on the river to use a barge on the lake?

MR. GRIMBLE: There is no possibility whatsoever of ever having a boat or a barge which will navigate the Athabasca even under best conditions. If you have a saucer floating on top of the lake with three and four-foot draft, it isn't safe. The McInnis Company have a lake boat which has a six or seven-foot draft which stays on the lake. If they could get a six or seven-foot draft, then they could have, presumably, a safer boat or barge for transportation, and this is possible by operating out of Peace Point.

COMMISSIONER GAINER: Are the Slave River channels sufficiently deep that they could integrate river and lake services?

MR. GRIMBLE: Yes. Even during August in low water they were operating from Swanson Lumber Company to Bushell with over a four-foot draft with lumber when operations were restricted to three feet or two feet ten inches, and this was not so much because of a limitation on draft but on the limitation on the amount of lumber they could get on the barge. Had it been concentrated they could probably have loaded it down to 7-foot.

COMMISSIONER GAINER: That wouldn't necessarily be a safe operation, a 4-foot draft on the lake.

MR. GRIMBLE: A desirable draft to operate on the lake during a storm would be in the order of 7 feet.

THE CHAIRMAN: What happens when a storm comes up?

MR. GRIMBLE: They tow their barges across the lake, and they have good communications now and they don't usually tow them when they have a warning.

THE CHAIRMAN: Are there many times during the season when it is not safe to take them out on the lake?

MR. GRIMBLE: I couldn't give you a number. It is mainly in the fall; that is a bad time for the storms.

MR. BISHOP: May I give you those figures, if you would like them now?

The gross profit before taxes in each year: 1951, $444,940; 1952, $117,110; 1953, $269,269; 1954, $357,514; 1955, $955,395, and the annual report that year notes that this was the beginning of the DEW Line, which greatly increased their tonnage, and there was also an increase in tonnage that year to Lake Athabasca ports. 1956, $642,568; and I should mention that the 1955 report states that there will be a reduction of 12 per cent and 19 per cent on the rates of certain commodities. It doesn't say in the report just what those were. That is between 1955 and 1956. In 1957, $615,545, and 1958 it was $721,738.

MR. FOUKS: Mr. Chairman, I didn't want to interrupt, but just in clarification, the point that Mr. Bishop indicates is correct, except that it goes further to say this:

"In determining the new rates for the 1956 season, this standard tariff has been used as a base and a 30 per cent reduction has been applied. This reduction will apply in varying degrees to the tariffs for all points north of Fort Smith, since the tariffs to points south of Fort Smith are already at least 30 per cent lower than the standard tariffs established by the Board of Transport Commissioners."

So I am merely suggesting that this only

applies in the northern area; it wouldn't apply to the part that Mr. Gordon was talking about this morning.

MR. GRIMBLE: It confirms the statement that the rate to Uranium City is now less than what the Board allows.

I was going to deal next with the problem of dredging and items of cost. We introduced as an exhibit the dredging costs as obtained from the Government records. I forget the exhibit number, but, in any case, the dredging cost is itemized in the government records. These are direct costs and there are many items not included, items such as a snag boat, which operates on an overtime basis, taking the snags out of the Athabasca river. I couldn't guess at the cost of it, but I would assume it would be in the order of $15,000, $20,000 a year.

THE CHAIRMAN: Are you suggesting that is a cost which would be eliminated if dredging were stopped?

MR. GRIMBLE: Yes. They wouldn't need a snag boat. I would guess $15,000 to $20,000, but that is just a guess. I assume it is about half the size of a dredge and it has a crew about half the size of a dredge. Also in this item that we have given in here there is no allowance for overhead or supervision or interest on capital, etc., etc. These, of course, are things which do not enter into the government bookkeeping, such as the Edmonton office or the Ottawa branch of this department, and so on.

THE CHAIRMAN: Would those be substantial

items?

MR. GRIMBLE: I would say that, with the staff they have over there, the proportion which could be allocated to this portion of the river could be in the order of $25,000 a year, for dredging and snag boats.

THE CHAIRMAN: That is an extra $10,000 for supervision. What overhead would you calculate?

MR. GRIMBLE: $15,000 for the snag boat, and if they include their telephone bill, light and so on, and divide it in half, they would probably have $25,000 worth of overhead here in Edmonton.

THE CHAIRMAN: If Northern Transportation were to continue to haul goods and take them only from Peace Point to Uranium City, would the staff be reduced by fifty per cent?

MR. GRIMBLE: Their work would be reduced by fifty per cent. Perhaps I have gone too high with $20,000. Let's say $15,000. It will be $35,000 if you put the snag boat in.

MR. BISHOP: Possibly your lordship is familiar with the definition of Parkinson's Law which would be raised here.

MR. GRIMBLE: There is another figure, and that is the cost of the navigational aids on the Athabasca, which I couldn't get at this time. Those are necessary because of the difficulties of operations on the Athabasca river, and they have buoys and markers and they have a navigational aids boat, and one of them

does nothing but cruise the Athabasca.

THE CHAIRMAN: If you have buoys and lights, and so on, you are suggesting that the Athabasca be kept open for use?

MR. GRIMBLE: You wouldn't need them in high water. The only reason they had them was to try and handle more freight during low water. I would say a good round figure to be used might be $200,000 a year, the cost of navigation, dredging, supervision, and so on.

THE CHAIRMAN: You say this could be stopped if the dredging were discontinued?

MR. GRIMBLE: Yes, definitely. This is based on past experience, of course. This, of course, is based on trying tomaintain a 3-foot minimum draft. These are the figures we would be looking at. If they said they were going to get a 5-foot draft, try to get the rock cut out, these figures don't enter into the cost at all, they arenot nearly applicable.

I was going to go on and possibly outline a few of the problems of navigation on the Athabasca which we might not be familiar with. One is that at Waterways now where, because of the rock cuts, they are required even during high water and particularly during low water to yard their barges on Leman's Landing, and they anchor the barges there one at a time; they have an anchor boat moving back and forth, five

or six miles down the river, to manouvre through the rock cuts one at a time.

All the tows are assembled by bringing them one at a time to this assembly point and then they move down the river. The navigational problems of the Athabasca necessitate a highly skilled pilot or skipper. It takes a few years, I believe three years to train a man to handle this operation, and at the present time they have not enough of them so what they do is shuttle these men between Waterways and the Delta and the skippers who have not experience in the Athabasca handle the lake navigation where they do not have to be familiar with the bars and shoals in the Athabasca. It restricts their movement and does not give them the personnel to take the boats back and forth. They have to shuttle them back and forth to accommodate the problem of the Athabasca. Of course, if a native pilot takes sick or goes on a spree they have to hold up until they can take off, because they cannot pluck off a man who is a good man on boats and put him in to fill this position.

COMMISSIONER GAINER: That is a problem peculiar to Northern Transportation, is it?

MR. GRIMBLE: More so to the Athabasca than to the lakes. Then, there is the problem of night shutdowns and on tow movements to the lake down-stream loaded they have to shutdown at night in the low water periods because they cannot navigate this cross-over in the low water in the dark. In the Fall of the year there are long periods of shutdown because darkness comes quite early. I mentioned previously the in-

definiteness of loading which they have partially solved now. That is, loaded their barges,and the river instead of going up went down and they were loaded too heavy.

THE CHAIRMAN: Is that solved now or partially solved?

MR. GRIMBLE: It is partially solved by the readings, but it is still a factor they have to watch carefully, so they do not overload and hang themselves on a sand bar.

COMMISSIONER GAINER: Perhaps this question is coming too soon, but if you were operating on another river and using, let us say, a 7 foot draft, would you not perhaps be operating it just as close, in terms of your channels and so on, so that you might still not want to navigate at night?

MR. GRIMBLE: No. Actually to navigate the Athabasca, the first 60 miles to Mile 120, they navigate at night or day. The Peace River is wide and deep, and there would be no problem of operating night or day up or downstream.

COMMISSIONER GAINER: In other words, there would not be any place where you have an eight foot draft and operating a seven foot barge?

MR. GRIMBLE: No, the Peace River is in the area of 35 feet deep, except the little rapids at the border. Everywhere that we are familiar with there is no problem about a seven foot draft. The

same thing applies to the Slave River, of course. The other feature about this Athabasca River we have mentioned, the problem of interchanging equipment from the Mackenzie River system down to the Athabasca system where they have a different type of draft and equipment, so it reflects their flexibility of moving equipment back and forth. In addition to this there is the problem of operation of the lake and they have a compromise type of equipment. It is compromised to operate with a low draft on the Athabasca River and it is supposed to operate on the lake too and it consequently loses efficiency. One of the places it loses efficiency is the drive shaft and propeller are in tunnels underneath the tugs and this is not the most efficient way to drive the boat. The top part of the propeller is out of the water most of the time and it is only when it gets a load that it is using the full efficiency of the system. If they had a deeper draft operation they could have the propeller below the tug and for every horse power they put out they would get more effective drive. This is one of many things that enters into this.

Now, in conclusion, these problems would all be eliminated by an operation from Peace Point. Another way of more efficient handling that could be effected which is not in use now is in treatment of the fishyback operation. You probably noticed on the White Horse run, that is the Vancouver Skagway movement they have

instituted these individual package tunnels and if these are large, as they use on the great lakes, it would be difficult to operate this type of facility out of Athabasca. Bringing on a big tunnel, they might have to leave a big tunnel off entirely, or put it all on, so that your flexibility of operation would be restricted, if you were using large tunnels. None of these factors would enter into the movement of Peace Point to Uranium City, and there is the added factor of a 79 mile saving in distance.

COMMISSIONER GAINER: Well now, Mr. Grimble, for one, I am not too familiar with the operations on the lower Peace and Slave. Is there anything else you can add to this? Are there any problems about navigating on the lower Peace and Slave on a 7 foot draft?

MR. GRIMBLE: No, it is deep water and it is sheltered water.

COMMISSIONER GAINER: Are there any places you have to take up barges one at a time?

MR. GRIMBLE: No, not even Catfish Channel. I asked the skipper specifically, I said, "Would you be restricted in Catfish as to the number of barges?". He said, "I would take as many as you like". Normally they take four, but he was willing to take eight and he was the senior skipper. We might deal with the long haul from this point to Uranium City. Of course, this is out in the open lake. In this direction this would be common to both and this part here approxi-

mately 20 miles would be out in the lake still, but it is not a serious factor. It is fairly narrow and restricted and they would have more the lake type piece of equipment.

COMMISSIONER GAINER: Is it not shallow at that end of the lake?

MR. GRIMBLE: When they have a bad wind from this direction.

THE CHAIRMAN: You mean from the west?

MR. GRIMBLE: Yes. When you get a heavy wind from the west it tends to move the water to the east from Lake Athabasca and this low water, such as in 1955, would lower the navigational draft to about seven foot. This was probably the limiting factor of the whole thing. Then, Fort Chipewyan is in a very low area with a very bad wind from the west, they could be down to a seven foot draft, but this is the limiting factor.

COMMISSIONER GAINER: Around Fort Chipewyan?

MR. GRIMBLE: Yes.

COMMISSIONER GAINER: I would like to get this on the record. This would be the limiting factor, you say, in that region both in terms of width and draft, and width of channel.

MR. GRIMBLE: Oh no, it is unlimited.

COMMISSIONER GAINER: That would be of all things the limiting factors of the route you are

speaking of.

MR. GRIMBLE: A bad west wind and a very low period, those would be the limiting features. If the wind was really bad you would have to wait it out and get back to the 7, 8, or 9 foot draft. There is no problem operating in the Peace. The flow in here as far as upstream navigation, from this point to Waterways the load movement is downstream. The Northern Transportation Company move upstream empty, McInnes move upstream loaded with their fish barges so this upstream movement is not too bad. Up here we have an upstream movement to Peace Point and in the Catfish Channel it can vary, it could be upstream or downstream depending on the level of the Peace and the level of the lake.

COMMISSIONER GAINER: What would you envisage about this operation and aid to navigation and these things if some other private carriers were to continue operating or do you think this, along with the Gunnar and McInnes would cease operations on the Athabasca if Northern Transportation moved?

MR. GRIMBLE: I would say McInnes operated there for years. You can look back at the dredging records and back in 1959 there was very little spent on dredging. I think McInnes would tend to move to Peace Point as well.

COMMISSIONER THOMSON: All this discourse on the difficulties of navigation, I take it

Northern Transportation are still making a little profit even in spite of all this?

MR. GRIMBLE: They made a profit last year of $700,000.00.

COMMISSIONER THOMSON: And if there were none of these difficulties then we would get the cheaper freight?

MR. GRIMBLE: If they would pass the saving on to you which they are not doing now. They are making a $700,000.00 profit and not passing the saving on.

COMMISSIONER THOMSON: But they are still operating a little cheaper than railroads. We get freight in at around $1.75, what would you anticipate we might get freight for if all these difficulties were ironed out or did not exist, say, from Waterways?

MR. GRIMBLE: This is a difficult question because there are so many variables. I hate to say what they would do even in the days of a $700,000.00 profit, they are not talking about a reduction in rates this year.

COMMISSIONER THOMSON: I was losing track of all these difficulties which you mentioned which were considerable. However, they are still able to make a little profit?

MR. GRIMBLE: Make a good profit. I think I would like to have a business making a profit like that.

COMMISSIONER THOMSON: Well, I do not know, but I suppose they must be quite satisfied with that type of river navigation even in spite of the difficulties.

MR. GRIMBLE: Yes sir. One thing you must remember, of course, is that the navigational aids and dredging is not paid for by Northern Transportation Company, it is a gift to them.

THE CHAIRMAN: Last year their profit before they paid tax was $721,000.00.

MR. GRIMBLE: Yes, sir.

THE CHAIRMAN: Can you estimate how much of that was earned on carrying freight to Uranium City and how much of it was earned carrying it north of the Lake Athabasca area?

MR. GRIMBLE: You would have to have a very complicated bookkeeping system to do that. I have asked them this question and they have not got this type of bookkeeping system. They try each year to arrive at an average ton mile rate for moving freight plus charges, plus portaging where it is applicable and from this they do work out a net revenue, but this is a fictitious figure because these factors I have mentioned do not enter into it because they use an average ton mile figure for the whole system, while these problems are only in the Athabasca region. I not sure how the bookkeeping system works, but unless they have a very complicated bookkeeping system it

would be difficult for them to arrive at a figure which would give the revenue for each particular portion of the route or each particular type of freight.

COMMISSIONER GAINER: How much of the equipment of Northern Transportation would you expect to get use on a new run operating on the Peace and Slave. What draft are the steel barges now?

MR. GRIMBLE: They operate at five foot and that is an efficient operation. It would be a slow transition from this compromise type of equipment to the more efficient type.

COMMISSIONER GAINER: It could be used to about five foot maximum until they re-equipped themselves?

MR. GRIMBLE: Yes, sir.

MR. FOUKS: When was Northern Transportation first incorporated?

MR. GRIMBLE: 1947, I think.

MR. FOUKS: This would appear to indicate there was dredging before Northern Transportation came into existence as such. It would have to be continued afterwards so the round figure which was submitted for the purpose of saving would have to be cut because McInnes and Eldorado - Gunnar, I mean, have they not their own system as well?

MR. GRIMBLE: I presume that McInnes would move to Peace Point and Gunnar would as well.

MR. FOUKS: Did you discuss it with them, may I ask?

MR. GRIMBLE: We have a letter from McInnes. I can read a paragraph; it deals with their fish business, actually.

"A rail service to Peace Point might fit to a small degree into our operations on Lake Athabasca since at the present time long water haul upriver is required before trans-shipment at Waterways. The situation at Peace Point would be an improvement due to better navigational conditions and shorter upriver movement and since presumably this would be on the main line and not a branch line, the service would be regular enough to result in better service than branch line service to Hay River".

This is the only indication I had that they would move, and, of course, I haven't talked to Gunnar at all.

THE CHAIRMAN: He is talking about this being on a main line and being a more frequent service. Is there any prospect of there being a more frequent service?

MR. GRIMBLE: There would be with ore shipments. There would be an additional train service, yes.

THE CHAIRMAN: How many ore shipments

would there be a week?

MR. GRIMBLE: It depends on the length of the trains and the operation of the line. I wouldn't hazard a guess as to that.

THE CHAIRMAN: It sounded to me from what I think it was Mr. Jewitt - I thought he said there wouldn't be more than one train every week or two.

MR. GRIMBLE: Yes. I think we worked it out that it would probably result in one additional train a week, at maximum efficiency. He is talking now in terms of comparing a branch operation with a main line. I read the letter out of context and I would rather not deal with it at the present time.

COMMISSIONER GAINER: How do they deal with the fish operation at the present time? Do they operate frequently with small loads or infrequently with large loads?

MR. GRIMBLE: I think it would be infrequently with large loads.

COMMISSIONER GAINER: How would they be concerned with frequent service?

MR. GRIMBLE: That is going into the fish industry. In dealing with fresh fish, at Waterways now, they don't deal with fresh fish, whereas at Hay River they deal with fresh fish.

THE CHAIRMAN: Are you finished with that branch of your brief?

MR. GRIMBLE: Yes, sir.

THE CHAIRMAN: It is twenty-five minutes to five. Perhaps this would be a convenient time to adjourn.

How are we getting on, with the points you have covered in the brief? I am wondering if we shouldn't try to sit a little longer. Mr. Guest is here from Victoria.

MR. BISHOP: It is just as you wish, Mr. Chairman. This seems to be going longer than we anticipated, too, although I rather imagine the discussion on freight rates which we had today will be longer than the other subjects - although it is very hard to say.

MR. GUEST: We are at your disposal, Mr. Chairman.

THE CHAIRMAN: Is it convenient to you to be here for a few days, Mr. Guest?

MR. GUEST: Yes, Mr. Chairman.

THE CHAIRMAN: If there is no rush, then we will start at ten o'clock tomorrow morning.

We will adjourn till ten o'clock tomorrow morning.

--- Whereupon the proceedings adjourned at 4.40 p.m.

ROYAL COMMISSION

ON

GREAT SLAVE LAKE RAILWAY

HEARINGS

HELD AT

EDMONTON, ALBERTA

VOLUME No.: 14 DATE: Oct. 1969

OFFICIAL REPORTERS
ANGUS, STONEHOUSE & CO. LTD.
372 BAY STREET
TORONTO
EM. 4-7383 EM. 4-5865

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

ROYAL COMMISSION ON

THE GREAT SLAVE LAKE RAILWAY

Hearings of the Royal Commission on the Great Slave Lake Railway held at the Court House, Edmonton, Alberta, at 10.30 a.m., October 7th, 1959

PRESENT:

MR. M. E. MANNING	Chairman
MR. WALTER D. GAINER	Member
MR. JOHN ANDERSON-THOMSON	Member

MR. FRANCIS M. FEEHAN	Counsel
MR. A. PATERSON	Secretary

---On resuming at 10.30 a.m.

THE CHAIRMAN: Gentlemen, we have been delayed because Mr. Fouks wanted to make an application to us in private, and we have been discussing it, and Mr. Fouks will make it in public.

MR. FOUKS: I am sorry for the delay. I want to make the application, and let me say that Mr.Baldwin associates himself with this application.

The application is, in essence, that the rebuttal brief we indicated which would be presented immediately following these hearings has been delayed until we have sufficient time to analyse all the material that has been presented by the Calgary and Edmonton Chambers of Commerce as to any questions we may want to ask, after we have received from them photostatic copies of all the material which they have entered as exhibits. In other words, while I can't give you a time when we will present this rebuttal brief, please be assured that it will be presented as soon as we can do so.

I should say that we would like the right to call back any of the witnesses so that we may, through Mr. Feehan, cross-examine them on any evidence which they have presented to these hearings.

THE CHAIRMAN: We have discussed this in my chambers before we came in, and I think, Mr. Bishop, you have no objection to these things being arranged as

Mr. Fouks has suggested.

MR. BISHOP: We are agreeable, Mr. Chairman.

THE CHAIRMAN: Then we can go on with the Edmonton brief as we were going on with it yesterday. Yesterday afternoon Mr. Bishop and Mr. Grimble undertook to try and get some information for us, and if it is available we would like to have that now.

MR. CLEMENT: The information, I am told, is not quite ready, but we hope it will be by noon.

The submission was departed from, sir, for discussion, but it had reached the point at the bottom of page 24.

THE CHAIRMAN: Yes.

MR. CLEMENT: And I will continue on ---

THE CHAIRMAN: Were we not in this position yesterday, that Mr. Gordon was giving us some information about figures and we were dealing with the question of whether it was feasible to expect the freight now going from Waterways to Uranium City by Northern Transportation to go via Peace Point and from there by water to Uranium City? Mr. Gordon gave us a good deal of evidence on that, and then Mr. Grimble was dealing with the reasons why he thought there could be some saving made in the east route over the water route from Uranium City, and that is where you finished yesterday afternoon, wasn't it, Mr. Grimble?

MR. GRIMBLE: Yes.

THE CHAIRMAN: I would like to ask Mr. Gordon

a few more questions after we get through listening to Mr. Grimble's argument.

Have you finished that part of it, Mr.Grimble?

MR. GRIMBLE: Yes, I have finished that part of it. We were on page 24. I think we have dealt with everything up to that point.

THE CHAIRMAN: And you have given us all the reasons as to why that saving could be made.

Now, can you do this? Have you been able to make an estimate in dollars as to the saving that would be made from Peace Point to Uranium City over the present water route?

MR. GRIMBLE: We are working on it in the office; we are endeavouring to do that. We were drawing frequency curves of low water to see what periods were affected over a long period of time, and we will have something for you later today.

COMMISSIONER GAINER: Mr. Grimble, would this include -- perhaps not an estimate of the cost reduction that might be achieved by the use of the same equipment on the new run as opposed to the Athabasca River, or would you be able to suggest to us generally now what cost savings might accrue by operating it, having your draft situation on the new run and on the old. I think you suggested that with the present equipment they might be able to operate on the basis of 5-foot draft all summer. Would that be correct?

MR. GRIMBLE: Yes.

COMMISSIONER GAINER: What I am wondering is this: to what extent would you expect this to offset the operating costs, power requirements, and so on, and having 5-foot draft rather than 2½ feet and 3 feet?

MR. GRIMBLE: That is the course we are trying to take. It takes a lot of assumptions. You brought up another point -- should they use deep draft vessels of another type would there be another cost involved? That is the situation. We are not endeavouring to do this. Our thought was only to compare the lost time factors with the present situation. It involves assumptions. I am not too certain how we will do this yet. We are starting with the frequency curves of low water duration, and we are not sure what assumptions we will have to make to come out with a figure.

COMMISSIONER GAINER: What I was interested in generally, because it may not be necessary to carry it this far in your study -- would you expect the same power equipment would operate, with the same number of barges, let's say with a maximum of 5-foot draft, with the present barges, and a consequent reduction in operating costs?

MR. GRIMBLE: It would look, just from the figures we have reviewed, that during a month or two months of every year, with the same equipment and the same personnel, they could double the amount of traffic they could handle.

COMMISSIONER GAINER: With the same power unit?

MR. GRIMBLE: With the same power unit.

COMMISSIONER GAINER: In other words, it doesn't require that much more power to move, say, four barges?

MR. GRIMBLE: No. In high water they handle four now with the present equipment. This is standard tow, four barges, even at low water and high water. The difference is in the loading of the barges; not the number of barges but the loading of barges.

COMMISSIONER GAINER: In other words, there is excess power available?

MR. GRIMBLE: Yes. They can't utilize it.

THE CHAIRMAN: Mr. Bishop, you are getting that material for us that you thought you would be able to get overnight?

MR. BISHOP: That is right, Mr. Chairman.

THE CHAIRMAN: Do you think youwill have that by two o'clock this afternoon?

MR. BISHOP: You mean the material you asked for yesterday?

THE CHAIRMAN: Yes.

MR. BISHOP: I think so. Mr. Chairman, there were two questions on the list that I took down yesterday. One was what proportion of the tonnage faced low water in 1955 and in what other years did the tonnage face low water. The second question: how are costs

affected by low water on the Athabasca, which is just what we have been discussing. Both those questions are being worked on in Mr. Grimble's office, but they need his personal attention to complete them. So while we are sitting here they won't be being completed.

The other two questions, the freight from Uranium City, that can be easily ascertained. We didn't know you would want it first thing this morning. The fourth question was: how much traffic went to Yellowknife in the general 12,000 tons?

The material in the latter two questions could easily be presented right after lunch.

THE CHAIRMAN: Perhaps we can go on with the brief now and come back to the questions dealing with freight that is now handled by Northern Transportation a little later on.

MR. BISHOP: I think that would be satisfactory, Mr. Chairman.

MR. CLEMENT: I will proceed, then, commencing at the bottom of page 24.

It must be remembered that the water transport from Waterways north to the mining area of Lake Athabasca and the Fort Smith-Great Slave Lake area, is a strictly seasonal operation lasting at the most five months. There is at present no access to either Lake Athabasca or Fort Smith for the remaining months of the year except by air.

If the western route of the railway to Pine

Point were selected the Athabasca river traffic to Lake Athabasca and Uranium City and Fort Smith would continue and service to these areas would still be only for the short summer season. The Northern Transportation Company would then have little need for the wharfage and facilities at Bell Rock Harbour and perhaps Cunningham Landing and these costly facilities would be abandoned.

THE CHAIRMAN: Why is that? I don't follow that sentence.

MR. CLEMENT: Well, I am lost in geography myself. I think you will have to get Mr. Grimble back on the job.

MR. GRIMBLE: I will have to refer to map No. 2. If the western route was used the transshipment point would be possibly Hay River or Ile du Mort. There is little likelihood that N.T. would carry on operating out of Bell Rock and they would transfer their operations to Hay River or Ile du Mort. The portage would be discontinued so that Bell Rock Harbour and Cunningham Landing would be abandoned.

THE CHAIRMAN: That is assuming only, isn't it, that all the freight now going from Waterways to Great Slave Lake would go not by water but by rail?

MR. GRIMBLE: Yes, sir.

THE CHAIRMAN: Now, why do you assume that?

MR. GRIMBLE: Mainly because of the portage. The cost of portaging goods is in the order of $10 a

ton. Mr. Gordon could point out how far we could ship it by rail for $10 a ton.

THE CHAIRMAN: That is the rail route, the western rail route would be cheaper than the water route.

MR. GRIMBLE: By virtue of the portage.

THE CHAIRMAN: The portage charges are how much?

MR. GRIMBLE: Ten dollars a ton.

THE CHAIRMAN: How is that made up?

MR. GRIMBLE: Actually the tariff is 40 cents a hundredweight, which is $8 a ton, but Northern Transportation Company advises that this doesn't look after the warehousing and handling which is necessary, and what they did for me was take out their cost of portaging and handling the facilities from Fort Fitzgerald to Bell Rock and divided this with the tonnage and came out with this figure of $10 a ton. If you wanted to make a shipment now from Fort Fitzgerald -- there isn't one published to Bell Rock. The charge from Fitzgerald to Fort Smith is 40 cents a hundredweight, and there is no tariff from Fort Smith to Bell Rock because all that is carried on a movement.

THE CHAIRMAN: The tariff provides 40 cents a hundredweight?

MR. GORDON: Yes, sir, 40 cents a hundredweight.

THE CHAIRMAN: And that, of course, doesn't

provide for loading the barges again?

MR. GRIMBLE: No, that is only to Fort Smith.

THE CHAIRMAN: Now, Northern Transportation have told you that it costs them $10 a ton to look after the portage?

MR. GRIMBLE: Yes, get it across the portage. It came to $10 a ton in round figures.

THE CHAIRMAN: Do you know how that is broken up in loading costs, trucking?

MR. GRIMBLE: No. This is all they gave me. I would like to have had it broken down, but this is all they gave me.

MR. FEEHAN: Sir, I could give you the costs of loading and unloading at Bushell, if that might help you. The costs of carload lots at Waterways, $5.47 per ton.

THE CHAIRMAN: Is that unloading?

MR. FEEHAN: That is unloading and putting onto barges.

THE CHAIRMAN: And any warehousing that is necessary?

MR. FEEHAN: Yes. That is carload lots of 20,000 pounds or more -- $5.47 per ton. At the opposite end, at Bushell, unloading, warehousing, checking, palletising and taking off the barges, $3.26 a ton, making a total per carload lot of $8.73. Those are just the handling charges at either end. For fuel oil it is 41 cents and 50 cents, at either

end. I have the figure on sulphur here. It is only handled at one end, that is the Waterways end -- $1.43 per ton.

THE CHAIRMAN: Thank you.

MR. BISHOP: Mr. Chairman, Mr. Clement was called back to his office, so with your permission I will proceed to read the brief in his place.

THE CHAIRMAN: Was there anything further you wanted to ask Mr. Grimble on this point?

COMMISSIONER GAINER: No, I think not.

MR. BISHOP: They would have to be replaced by a similar major expenditure at Hay River where the present facilities are not adequate for any large increase in tonnage, and more wharfage, slipways and warehouses would need to be constructed.

Although the yearly dredging and maintenance of Hay River Harbour is most expensive it cannot be abandoned regardless of which railway route is chosen since it is a logical point for trans-shipment of truck haul freight and the best available harbour for the fishing industry in the area. It appears unlikely that Hay River Harbour could ever be made suitable for deep draft lake boats which would need a rail connection. Thus, if future lake traffic calls for deep draft lake vessels, they either will have to use the Slave River to the Harbour at Bell Rock and there connect up with rail, or a harbour will have to be constructed at Ile du Mort. Since the need for the operation of deep draft lake steamers is not obvious at this time, it appears that the use of the Eastern Railway Route to Bell Rock Harbour with an extension to Pine Point would serve any water transport movements adequately; and if ore shipments from the north require processing at Pine Point, the movement could be to Bell Rock Harbour and back to Pine Point, a distance of 106 miles rather than to Hay River and back to Pine Point, a distance of 115 miles until such time as traffic justifies a harbour at Ile du Mort.

The Slave River from Bell Rock Harbour to Great Slave Lake is the best section of navigable water in the whole of the Athabasca and Mackenzie River system. The river is deep and wide with little current and the mud bottom offers little hazard should a vessel get off course.

THE CHAIRMAN: Do you mind if I interrupt for a moment? This is the only place in the brief you are dealing with harbour facilities, Mr. Grimble?

MR. GRIMBLE: Yes, this is the only place we compare them.

THE CHAIRMAN: Did you examine that harbour situation yourself in detail?

MR. GRIMBLE: Which one is this?

THE CHAIRMAN: These three harbours. You dealt with Bell Rock, but Hay River, I think the opinion has been expressed by others that Hay River Harbour might be made into a pretty useful one.

MR. GRIMBLE: I do not doubt that it could be made into a very useful harbour. The picture as it stands is that dredging in the past has endeavoured to produce about a five foot navigable channel and in order to do this the channel is about half a mile out of where they started dredging. This bar requires dredging of about a mile and a half channel in order to get a five foot draft. If they were to endeavour to deepen the draft, come out with a seven, eight or nine foot channel, they would probably

extend their distance to dredge to the order of two or three miles depending on how deep you want it. The sand bar is a very gradual slope out into the lake and, of course, the deeper you go the further you have to go to intersect the two surfaces. Roughly the figures might be in the order of for a five foot draft they would dredge one and a half miles and for a seven foot draft they would dredge two miles.

THE CHAIRMAN: For five foot?

MR. GRIMBLE: They would dredge one and a half miles out to the sand bar, and for a seven foot draft out two miles.

COMMISSIONER THOMSON: What would be the idea of dredging for a seven foot draft?

MR. GRIMBLE: I thought we were dealing with whether it could be made suitable for deep draft accomodation. They do not need to now.

COMMISSIONER THOMSON: You could not go down the Mackenzie with anything more than a five foot?

MR. GRIMBLE: Four foot six is the Mackenzie's limitation.

COMMISSIONER THOMSON: How much does it cost roughly to dredge that harbour at Hay River?

MR. GRIMBLE: For 1956 the dredging costs were $121,346.00 at Hay River.

MR. THOMSON: They do not have to dredge there, the harbour is deep.

MR. GRIMBLE: Yes. We have quite de-

tailed drawings and cross sections. We have been working on other problems there and we have very good cross sections and details of the harbour. The problem itself is not within the harbour or adjacent to the town, the problem starts half a mile beyond the harbour mouth and out to the lake.

COMMISSIONER THOMSON: You have to go out two miles before you get ten feet of water?

MR. GRIMBLE: Yes.

COMMISSIONER THOMSON: There is a lot of talk about deep draft, but where can you go? Is there any place you can go with seven foot boats?

MR. GRIMBLE: The only place you can go is Bell Rock or Yellowknife and you can go to Fort Reliance by the northeast arm with deep draft.

COMMISSIONER THOMSON: Well then, can you put bigger barges on if you have a seven foot draft? You do not haul load now, this is mostly barge and tug, is it not?

MR. GRIMBLE: Yes.

COMMISSIONER THOMSON: Well, you could handle rougher weather, but would there be any point in changing to seven foot drafts?

MR. GRIMBLE: They are trying to keep it so as to allow boats to go down the Mackenzie as well as on the lake, and they work on this four foot six and five foot draft.

COMMISSIONER THOMSON: And you could get

it at Dawson Landing as well?

MR. GRIMBLE: Yes, they anticipate they could put a five foot draft at Dawson Landing.

THE CHAIRMAN: What is the advantage of a seven foot draft, Mr. Grimble?

MR. GRIMBLE: As I understand it they visualize, looking a long way ahead, that there may some day be lake steamers which would be deep draft units, perhaps up to ten foot draft, which would bring ore and supplies in, for instance, from Dawson Landing down to the smelter. This is a long way ahead, but this is the sort of thing that has been envisaged and that is the only reason we brought it into the picture.

COMMISSIONER GAINER: I think there have been many suggestions earlier that you need certain minimum draft to operate safely on the storm conditions and rough weather conditions on the lake even though you are barging. How do you evaluate this?

MR. GRIMBLE: They have good radio equipment and good contact and they do not venture on the lake when there are storm conditions pending. What it would amount to if you are operating an economic venture and wanted to operate on the lake under these conditions you would need a different vessel if you were going to stay on the lake. You would go to a deep draft and be able to navigate the lake through storms that were severe.

COMMISSIONER GAINER: That was my under-

standing. In other words, it is a considerable advantage in order to provide more regular and frequent service under more difficult conditions provided you can stay within the limits of your draft?

MR. GRIMBLE: One feature in that regard, the present day tonnages, the present day traffic would not justify having this special vehicle just to weather storms. However, if there was a heavy movement of base metal deposit at Thomson Landing that needed moving and operation was to be exclusively on the lake, in that case they would probably buy the equipment for the lake operation.

COMMISSIONER GAINER: You are distinguishing now between the requirements now in Great Slave as opposed to Lake Athabasca?

MR. GRIMBLE: Yes.

COMMISSIONER GAINER: Would you say there is less or more advantage to the deep draft in Lake Athabasca than in Great Slave? We were speaking earlier of being able to get deeper drafts, for instance.

MR. GRIMBLE: Great Slave Lake is a bigger lake and the storms are probably more severe. There would be equal advantage in either case, I would think.

THE CHAIRMAN: Mr. Grimble, is there much difference between a seven foot draft and a ten foot draft from the point of view of hauling ore. You never mentioned ten foot draft until just a few moments

ago but you have mentioned a seven foot draft frequently.

MR. GRIMBLE: I am not an authority on this, but I would think the greater the draft the better it could weather the storms and the larger the cargo you could handle for the same type of vessel. The Great Lake steamers before the St. Lawrence Seaway were 14 and 15 draft controlled by the locks at Welland Canal, and now the controlling feature is at about 23 feet. This would indicate to me it would be desirable to have ten or twelve foot drafts for efficient operation.

THE CHAIRMAN: You mentioned the seven foot draft frequently would be worthwhile or advantageous. Is that much better than a five foot draft?

MR. GRIMBLE: Yes, I think any increase in draft is an improvement.

THE CHAIRMAN: For instance: is there much more advantage from five to seven than from seven to ten.

MR. GRIMBLE: I am sorry, I could not answer that.

THE CHAIRMAN: You do not know about that?

MR. GRIMBLE: No, I could not give an answer to that.

THE CHAIRMAN: You mentioned that if the dredging was increased from one and a half miles to two miles out from Hay River then you might get a channel seven feet deep instead of five feet deep.

Did I understand you correctly?

MR. GRIMBLE: What it amounts to is the difference you go out is a function of how deep you go. The bar is very flat, the bar that goes to the lake is a very flat slope and naturally if you want a five foot channel you intersect this channel a lot sooner. If you want a deeper channel you intersect at a lot further out in the lake.

THE CHAIRMAN: I understand the figures, but I am not just sure what the function is. I know what the nature of it is, but I understood you to say if you wanted a seven foot channel you would have to go out two miles.

MR. GRIMBLE: Yes.

THE CHAIRMAN: Actually the sand bar is out in the lake, is it not?

MR. GRIMBLE: Yes.

THE CHAIRMAN: Is it not created by silt from the lake rather than silt being brought down the Hay River?

MR. GRIMBLE: A movement of silt toward the Mackenzie.

THE CHAIRMAN: And do you say to get a seven foot channel you would require two miles of dredging?

MR. GRIMBLE: That is an estimate.

THE CHAIRMAN: But there is now being done a mile and a half of dredging?

MR. GRIMBLE: Yes.

THE CHAIRMAN: It would not cost another 33 and 1/3 per cent, would it, to increase the amount of dredging by that amount?

MR. GRIMBLE: Yes, the dredging - the excavation yardages go up. It is not a straight line relationship. You have a dredge section like this and as you go deeper it is not a straight line relationship.

THE CHAIRMAN: It becomes more costly, does it?

MR. GRIMBLE: The volume becomes greater.

THE CHAIRMAN: Could you give us an estimate of what you think that two miles of dredging would cost? We know one and a half miles cost $121,000.00.

MR. GRIMBLE: I do not think we can use this as a criterion. They have dredged a good channel this year and these dredging figures - it may be that the dredging they have done is partly a capital investment, in other words it may stay.

COMMISSIONER THOMSON: What did you say that average annual cost of dredging was or what was the figure you gave me?

MR. GRIMBLE: I just took the 1956 figure of $121,000.00.

COMMISSIONER THOMSON: I was given an annual average of $25,000.00. Is there something wrong with my figures?

MR. GRIMBLE: It could be. These are the figures from the Government records in Ottawa.

COMMISSIONER THOMSON: I got mine in Edmonton and they gave us an annual cost at Hay River of about $25,000.00 for dredging.

COMMISSIONER GAINER: I suppose we could look at it this way: there were two dredgers working on the Athabasca and two at Hay River, one hydraulic and one clam shell, so it should not be too different.

MR. GRIMBLE: What happens here, the contract work such as repairs and maintenance on the repairs in this particular year were $63,000.00. Plan number 251 which is one of the two units you mentioned was $39,000.00 and plan number 253 was, in this particular year, only $19,346.00.

COMMISSIONER GAINER: They have been operating two units there for how long?

MR. GRIMBLE: According to the records in Ottawa they have been operating two units there since 1952. There is one difficulty with the records in Ottawa that I found out in talking to them, they are not as familiar with the geography as they might be in Ottawa. I understand they code the costs here and send them to Ottawa and they record them and it could be that they used the general term for Hay River too loosely and it may be some of these charges are at Wrigley and end up in the records at Hay River. I am only telling you what is in the books and I will

not vouch for their accuracy.

COMMISSIONER THOMSON: I got my figure from Mr. Kellogg himself who is in charge of the harbours and that is the figure he quoted me, $25,000.00 at Hay River.

MR. GRIMBLE: For last year?

COMMISSIONER THOMSON: No, this is the average cost since they started dredging. I was just wondering how that discrepancy crept in.

MR. GRIMBLE: He may not have a record of the contract work. The contract work is kept in Ottawa on a separate set of books. Each plant has its own book and all charges for that plant go right into that book with the record of where the unit is, the work for that period of time. This is quite well done. If the coding from here to Ottawa is correct then Ottawa has done a very good job of keeping the costs. I went through these records myself in Ottawa page by page and was quite pleased with the way it was handled. They are not familiar with the geography there and if the coding was not accurate here it may give you a different picture.

MR. BISHOP: We will enter this as an exhibit.

MR. BALDWIN: I was up there the other day and I saw the dredge and I was told by the people up there that it does not work day in and day out. There are periods when it works and there are periods

when it does not work. I suppose the crew is up there constantly and if there was a case of extending it from one and a half to two miles the tools are there and the crew is probably being paid. However, it is not a constant operation.

MR. GRIMBLE: They moved one from Wrigley Harbour to Hay River.

MR. BALDWIN: Well, that was the picture I was given. It is not a continuous operation, but it remains there for when it is required.

MR. GRIMBLE: All the information I have on it, the years we have here, they have spent quite a bit of money and time adjusting their units and experimenting.

THE CHAIRMAN: There is quite a discrepancy between $25,000.00 a year and $121,000.00 a year. I wonder if there is some way of getting these figures reconciled?

COMMISSIONER GAINER: Would the source of your figures for Hay River be the same as for the Athabasca River?

MR. GRIMBLE: Yes, sir.

COMMISSIONER GAINER: It is the same accounting set up?

MR. GRIMBLE: Yes, they have one department that looks after contract work, that is, if a plumber goes out to work on a dredge it is contract work. They have a set of books for each unit and a very good

set for each unit and they show where it worked, how many hours of each period and they even have the yardage it moved.

These are very good records, and the only inaccuracies I could see is if these office coded sheets didn't show the proper location.

THE CHAIRMAN: You don't happen to remember if they kept accounts for downriver Mackenzie river or lumped it together?

MR. GRIMBLE: The only thing is they designate, say, Wrigley Harbour, the designation of the costs and exclusion of costs, overheads, and so on. I feel that the figures for Athabasca River operations are drawn comparably with Hay River and other points. I think the Athabasca are more accurate than the Hay River, because there is more room for the dredge to move about. In the Great Slave Lake region there is a possibility it may move down to Wrigley Harbour, move down the Mackenzie; there is a greater range it can move, too, and not be coded in Ottawa.

MR. FEEHAN: May I enter this as an exhibit, sir?

THE CHAIRMAN: What is it?

MR. FEEHAN: This is the various costs of dreding from which Mr. Grimble has been reading. You will notice there is also dredging going on at Bell Rock Harbour, and now even for a 7-foot draft there would be considerable dredging to be done there.

MR. GRIMBLE: May I correct that? It is only in front of the face of the wharf they move in and occasionally do this dredging. They do it

occasionally and it isn't a significant matter. I think the moving costs are high. They have to move from Hay River and back again, and it is a small amount of dredging.

COMMISSIONER THOMSON: I think you are quite right. I think about every third or fifth year they have to dredge. It is deep water there, anyway, about 13 feet

THE CHAIRMAN: What is the harbour like at Hay River once the dredging has been looked after?

MR. GRIMBLE: The harbour at Hay River is good, it is long; there is adequate room for wharfage, the water is quite deep for a considerable distance, and it allows the tows to go in. The entrance is a little restricted, but once inside it is an excellent harbour.

THE CHAIRMAN: Is it difficult to get into it, in stormy weather?

MR. GRIMBLE: I have heard it is; in hitting the channel and lining up it is a little difficult. I have heard complaints that they couldn't squeeze past. Actually the opinion from everyone I have talked to is that it is a very good harbour. It is the difficulty of the sand bar. One of the problems, of course, in operating a harbour such as Hay River is that the river is not as wide, and in forming their tows they have to assemble them. This is a small point. It is a small matter.

MR. BISHOP: May I proceed, Mr. Chairman?

THE CHAIRMAN: Yes, please.

You have nothing more, Mr. Fouks?

MR. FOUKS: No, Mr. Chairman.

MR. BISHOP: Until recently there was thought to be some advantage to the transshipment of premium freight from Fort Providence or Mills Lake in the two weeks before Great Slave Lake is navigable in the spring. The ice in the Great Slave Lake rots out in places and does not allow navigation as early as the Mackenzie River breakup. Transshipment at Mills Lake gives a head start on the river navigation of the Mackenzie by approximately two weeks; however, this advantage is lost as the river transport catches up with the ice again at Fort Norman and at Fort Good Hope so that by the time Aklavik is reached, the gain in time has been very little. The delta of the Mackenzie is slow to break up and the Arctic Ocean even slower so that for shipments beyond Fort Norman, no appreciable gain is realized by starting the barge from Mills Lake. If a short gain in time is desired and worth the added cost the goods can be trucked an additional 100 miles to Fort Providence for transshipment. However, the total freight going down the Mackenzie throughout the four-month period of river navigation is not great so that premium rush spring freight that would need to be trucked to Providence would not be great enough to justify any extension to the present road facilities.

An expenditure on an ice breaker type of

vessel to open Great Slave Lake from the Slave River to Hay River to the Mackenzie River and across Great Slave Lake to Yellowknife rather than constructing additional highways or railways would certainly justify a study.

THE CHAIRMAN: Can you tell us whether there is any difference in time between when you can ship from the mouth of the Slave River and when you can ship from the mouth of the Hay River?

MR. GRIMBLE: Possibly the best way to answer that would be to review the arrival dates at, say, Norman Wells and Aklavik, the two harbours. As you know, there is some rivalry to arrive at these places first. This is a known fact, that there is a rivalry in trying to arrive at these places. But to show how this has worked out in the last few years, I may read a few of these dates. It varies a little. Leaving Hay River -- this is 1955 -- taking the arrival at Norman Wells from Hay River for the year 1955, it was June the 15th. The arrival at Norman Wells from Bell Rock was June the 18th. 1956: the arrival at Norman Wells from Hay River was June the 13th, and the arrival from Bell Rock was June the 18th. In the following year, 1957, the arrival was June the 16th from Hay River, and June the 19th from Bell Rock. 1958: the arrival at Norman Wells from Hay River was June the 12th, and from Bell Rock June the 9th. In 1959, this year, the arrival at Norman Wells from Hay River was June the 19th, and the arrival from Bell Rock was June the 26th.

This was a bad year for Bell Rock.

THE CHAIRMAN: Five days' difference in 1956, but usually three days?

MR. GRIMBLE: Bell Rock won out by three days. We might look at the picture from there on, though, and it indicates that, no matter who won the race to Norman Wells, the same person doesn't necessarily win the race from Aklavik. What we have stated in the brief is that as they go downriver they are usually behind the ice, and even if they arrive there they have to wait.

THE CHAIRMAN: What about Yellowknife? Is there any difference there?

MR. GRIMBLE: Y.T. doesn't make a race to Yellowknife out of it; I don't know why. But as stated here, it says: "Departures from Hay River to Yellowknife are not necessarily the first departure dates but are dates made by first trips of Northern Transportation Limited." This would indicate to me that they are not striving to get to Yellowknife early. So almost in every case it is a case of first there. Northern Transportation Company I think ---

COMMISSIONER THOMSON: That would be vastly changed if Y.T. went to Fort Providence.

MR. GRIMBLE: Yes, as far as moving it down the Mackenzie. Y.T. in 1951, 1953 and 1954 operated out of Mills Lake, and now they arrive in Norman Wells, for example, on June the 13th, June

the 16th, June the 12th. In the years 1953 and 1954, operating from Mills Lake, they arrived June the 7th and June the 14th. What it amounts to is that they may gain a week or two weeks by operating out of Mills Lake, and they have discontinued this because it has to be premium freight, and no one is interested in this. The idea is to get a barge of oil down. They send it down the river empty with the idea of picking up a load of fuel as early as possible.

MR. FEEHAN: Comparative arrivals and departures, 52-N, sir.

---EXHIBIT NO. 52-N: Schedule of comparative arrivals and departures.

MR. GRIMBLE: It might be in order to consider the significance of these movements from Providence downriver or from Mills Lake downriver. Y.T. are now considering making an early spring shipment downriver, but this they think will be premium traffic which justifies the extra cost, and they are probably thinking of taking a thousand tons down the river a week or two earlier. They consider it is going to cost them in the order of 10 cents a mile to truck it another100 miles, in contrast to putting it on the barge at, say, 4 cents a mile. They pointed out to me that they would truck 100 miles of extra distance to land it at Fort Providence.

THE CHAIRMAN: They would truck from Hay River?

MR. GRIMBLE: From Enterprise, which is the junction of Hay River.

THE CHAIRMAN: To Providence?

MR. GRIMBLE: Yes. It would be an extra 100 miles of truck haul.

THE CHAIRMAN: How much would that cost?

MR. GRIMBLE: I think it would be in the order of 10 cents or 12 cents a ton-mile, $10 or $12 a ton.

THE CHAIRMAN: And that is instead of ---

MR. GRIMBLE: Instead of barging at an approximate rate -- on the whole route it would be 4 cents a ton-mile, but incrementally it would probably be lower than that.

THE CHAIRMAN: When you say the whole route, that would be from Hay River down to Norman?

MR. GRIMBLE: Yes.

THE CHAIRMAN: I was going to ask you something about those truck rates apropos of what we were speaking about yesterday. You spoke of the winter roads and development roads. The winter road was something over which trucking can be done at something like 20 cents a ton-mile. Are those rates 10 cents or 12 cents a mile up there, over a paved highway?

MR. GRIMBLE: There isn't a paved highway up there.

THE CHAIRMAN: Do you think if there were a paved highway it would cost 10 cents or 12 cents a

mile to truck?

MR. GRIMBLE: From Edmonton to Hay River it was 7½ cents a ton-mile, and assuming that the bottom half of that haul was probably 6 cents a ton-mile and the top half, say, 10 cents a ton-mile, average.

THE CHAIRMAN: Edmonton to Hay River is ---

MR. GRIMBLE: Seven and a half cents a ton-mile.

THE CHAIRMAN: And that is what the trucking company charges?

MR. GRIMBLE: Yes. This is a truckload rate, where they have a full truckload.

THE CHAIRMAN: And you would consider that the south half of it would be at ---

MR. GRIMBLE: Between 5 cents and 6 cents a ton-mile, and the top half around 10 cents or 11 cents a ton-mile.

THE CHAIRMAN: You think it would be 10 cents to 11 cents for the top half?

MR. GRIMBLE: Yes, roughly. That is very rough, of course.

THE CHAIRMAN: What I was thinking of was, of course, what one might hope for in trucking ore around the shore of Great Slave Lake over a reasonably good road.

MR. GRIMBLE: One of the factors would be the load factor, of course, that is whether it was a one-way haul or a return haul. For example, Keno

Hill Mines north of Whitehorse have about a 300-mile haul there, and I think their costs are down to 5 cents a ton-mile, even though they are handling it on gravel roads in the north country. That is over gravel roads in the north, although fuel is cheaper -- I guess it is about the same.

THE CHAIRMAN: The costs appear to be 5 cents a ton-mile.

MR. GRIMBLE: I think in the literature I have here it says 4 cents to 6 cents a ton-mile.

THE CHAIRMAN: If we could get those figures so that there is no doubt about it. I would like to see them.

MR. GRIMBLE: I would be glad to do that. The man I contact is in Whitehorse.

COMMISSIONER GAINER: There is a figure for Couchon Mine.

MR. GRIMBLE: Yes. I know the man in charge of this movement very well and I can phone him at noon.

THE CHAIRMAN: Would you think that it would be difficult and more costly to haul concentrates around the shores of Great Slave Lake than it would be up in the Keno Hills area?

MR. GRIMBLE: I don't think it would be any more difficult. The Keno Hill road is up and down. In the winter time it would be as good as any road in the Yukon because it is frozen, smooth and hard. The greatest problem would be the load factor to

balance the loads. What they do is haul coal and supply goods for the mine. They have to haul in both directions. Coal is hauled and also supplies.

THE CHAIRMAN: If there were a mine on the east shore of Great Slave Lake, there would be a return haul similar to the Keno?

MR. GRIMBLE: Yes.

THE CHAIRMAN: What about coal?

MR. GRIMBLE: Yes, but it wouldn't lend itself to the same type of vehicle. I think they handle coal in pallets. I am not sure about that. They handle the ore in pallets or boxes. I don't think you could take fuel oil and bring back ore in a truck.

MR. FOUKS: It is 5 cents a ton actually for Cassiar Asbestos. This is submitted by Dr.Riley -- shipping costs estimated at 6 cents a ton-mile, but in this case 5 cents per ton mile. We were going to submit this in part of our rebuttal brief, but this may be a convenient time to file it now. It covers the point you are discussing.

THE CHAIRMAN: This deals with what it costs to haul ore by truck.

MR. FOUKS: Yes. Remember you asked Dr. Riley if he would examine that at one point.

COMMISSIONER THOMSON: You gave us a figure a minute ago from Mile 28, Enterprise to Providence. What did you say that was?

MR. GRIMBLE: I used a figure of 100 miles.

COMMISSIONER THOMSON: I notice your brief says 59. I was wondering if that wasn't a mistake, your brief wasn't a mistake.

MR. GRIMBLE: I just used the figure from memory.

COMMISSIONER THOMSON: Page 16 of your brief. That would only make an added 28 miles to go out to Providence instead of going to Hay River.

MR. GRIMBLE: Actually if you add the two together you are 90 miles from a river.

COMMISSIONER THOMSON: I am not talking about Hay River, I am talking about swinging off from Enterprise to go to Hay River. Is that the right figure?

MR. GRIMBLE: Yes.

COMMISSIONER THOMSON: From Enterprise to Providence, is that right? It seems to me it is longer than that.

MR. GRIMBLE: It would be about 72 miles.

COMMISSIONER THOMSON: I thought the actual road mileage was 95 or 97.

MR. GRIMBLE: Actually it is eight miles down the river. When we talk of Providence we talk of the end of the road. You mentioned the figure for costs if you were hauling to Providence with the Providence ferry which I consider to be on the south side of the river instead of going into Hay River you would save that 28 miles. If you take off 28 from 57 it would only be 28 miles further. I am not sure the 59 miles is right.

COMMISSIONER THOMSON: I think it is 97.

MR. GRIMBLE: I had 100 miles in my

mind and that is why I used it. I think probably - as far as dockage is concerned - I think the wharfage would be at Fort Providence because of the shallow water at the ferry crossing which would be another 8 miles.

COMMISSIONER THOMSON: But in the Fall and Spring you could not cross there, you have to have some facilities for storing and possibly picking up at the south side.

MR. GRIMBLE: Yes. The alternative would be to extend the road on the south bank of the Mackenzie. It is a poor landing there, it is three or four feet in depth of water, and they are even concerned about operating the ferry at that point.

COMMISSIONER THOMSON: You mean up the road on the high bank.

MR. GRIMBLE: Yes, on the south side might be the answer to this problem. I was pointing out that if the 1,000 tons was required as premium freight and it was to be trucked at 10 cents per ton mile in contrast to three or four cents barge, we are thinking now in terms of premium cost of 7 cents a ton mile and if it is 100 miles then we are thinking of 7 cents a ton, so for a thousand tons it would be $7,000.00. I suggest we should put this matter into perspective.

THE CHAIRMAN: We caused you to digress, at least I did. I would like to check on this one

thing and make sure it is accurate. If this rate of Cassiar Asbestos with a return load can haul for 5 cents a ton mile?

MR. FOUKS: Yes.

THE CHAIRMAN: And with the return load they consider the cost at 6 cents a mile?

MR. FOUKS: Yes.

THE CHAIRMAN: Is there any difference between asbestos and concentrates?

MR. SOUTHWORTH: We might guess the specific gravity would be a little lower in the heavier concentrates.

THE CHAIRMAN: Only a little lower?

COMMISSIONER THOMSON: I think the difference is in the design of your truck for the concentrates like at Pine Point you have one of these low built things. You carry the same tonnage in each truck it is just the design of the truck that would change.

MR. FOUKS: Dr. Riley says the smelter pays $1.09 per ton mile for the copper concentrate and the charge is 6 cents a mile and when he goes to lead concentrates he estimates a 70 per cent load at 11 cents - at 6 cents per mile.

COMMISSIONER GAINER: We do not know whether it is a return load there or not?

MR. FOUKS: No.

COMMISSIONER GAINER: And I suppose we

do not know the Cassiar operation is just a return of load of fuel and supplies?

THE CHAIRMAN: A truck salesman, I recall telling me some time ago, that he thought the large trucks he was interested in could haul gravel around here for 3 cents or a little lower than 3 cents a ton mile. This is as a result of some improvements that have been made recently in the trucks. This is right in the Edmonton district where the price of fuel and repairs is perhaps somewhat less.

MR. GRIMBLE: As a matter of fact we investigated the problem. This has to do with the Dalles Brothers and the railway had a very attractive rate, but they turned it down in favour of the truck haul they now have. We have these figures at the office and we will get them. The situation there is they are essentially owner-operated or the operators are on a bonus basis so they can cut their rates this way.

THE CHAIRMAN: The same sort of thing could be done with concentrates, could it not?

MR. GRIMBLE: It would be a little more difficult in an isolated area because an owner operated vehicle could go into Edmonton to be repaired. They give the truck to the operator and he drives it, and when it needs repairs he has the facilities in Edmonton. If you were trying to arrange this sort of thing from Fort Reliance to

Fort Smith the problem of maintenance would be considerably more difficult. The operation at Keno Mines have a big workshop and look after their own equipment at White Horse and they can afford it.

THE CHAIRMAN: Could not an owner operator look after servicing of his own truck by taking it to a garage that might be at Fort Smith?

MR. GRIMBLE: This would assume that somebody would establish a garage of this type at Fort Smith. Possibly it could be done, but I know one reason for the success of the Keno Mine operation is the fact they had a large parts department and fine shop. They have very good shops and very good maintenance facilities, and parts department. I do not know whether a private individual looking after the individual operators would go to this extent.

THE CHAIRMAN: Well, you are getting these figures. Undoubtedly it would cost more to truck concentrates in the north than it would to truck around Edmonton. I was wondering if perhaps we might not hope for a change in view of the new equipment that is becoming available in the last few years.

MR. GRIMBLE: Yes. The heavier equipment in the winter haul such as from Fort Reliance to Fort Smith, this would be the thing. The summer could be handled by water. The development road is not being developed for this.

THE CHAIRMAN: By and large the owners

of big trucks look for work for them in the winter-time, do they not?

MR. GRIMBLE: Yes.

THE CHAIRMAN: And that means the rates, if anything, are lower in the winter than they are in the summer?

MR. GRIMBLE: Yes, that is the case. We have this figure now. They are hauling at $1.20 now for 30 miles which works out to about 3 and 1/3 cents per ton mile. I might say this is pretty marginal, I think it is really scraping of trucking costs.

THE CHAIRMAN: Is that a ton with new and big equipment or is there some of it being hauled at 3 and a 1/3 cents per ton mile with trucks that were in common use some years ago?

MR. GRIMBLE: I think it is all new equipment, those big units which are quite obvious on the roads.

THE CHAIRMAN: Are there many makes of trucks that are used there?

MR. GRIMBLE: I think Mack is the one I have seen most often.

THE CHAIRMAN: What about the White truck, that is a big truck.

MR. GRIMBLE: Yes, White and Mack. Just one further point with regard to the harbour facilities at Providence or Mills Lake and that is the fact that there is now a winter road from Port Nelson to

Fort Simpson opened up in recent years by the construction company working in this area and the oil companies, and this could probably serve these people in early spring. This undoubtedly in the years ahead will develop into an all-weather development road and serve the lower Mackenzie for some aspects of the movement. Then, in addition to this in terms of serving the lower Mackenzie, we should not lose sight of the fact that the Government is building a road from Dawson City to Fort McPherson in the future. This would give us White Horse to Dawson City and from Dawson City over to the Field Plateau and down to Fort McPherson on the Delta.

THE CHAIRMAN: There is now a winter road from Nelson to Fort Simpson and one is planned for Dawson to Fort McPherson?

MR. GRIMBLE: The one from Dawson City to Fort McPherson is not planned as a winter road, it is under construction as a development road. I do not know the plans for the future for the Fort Nelson-Fort Simpson road, but I do know they use it now for a winter road.

THE CHAIRMAN: This is now being built as a winter road?

MR. GRIMBLE: The one from Dawson City to Fort Nelson has been built, they worked on 20 miles last year and I do not know how much this year. The survey is going ahead up in the Field Plateau area.

THE CHAIRMAN: What is the significance of these things you are saying? I just want to be sure we understand you.

MR. GRIMBLE: The point we were discussing is the merit of an early starting point from Fort Providence. I have seen in the paper quite a bit of discussion or comment regarding the early shipment potential of Fort Providence and I am merely bringing out a series of points, the amount of tonnage involved and the economics of moving the tonnage a week earlier by road rather than by any other method. Secondly, the possibility of serving this area for early Spring shipments, firstly, by winter road out of Fort Simpson, and, secondly, by development road from Dawson City to Fort McPherson.

MR. FOUKS: I do not like to interrupt but Mr. Guest would like to make a comment on that point.

MR. GUEST: Mr. Chairman, a winter road from Nelson to Simpson has not been used for several years. The freight moving to Fort Simpson in the winter time is shipped by Grimshaw, Enterprise and by a winter road from Enterprise to Fort Simpson and I have a letter from Northern Freightways.

THE CHAIRMAN: By winter road from Enterprise to Fort Simpson? There is a road there?

MR. GUEST: There was last winter. I will just read the letter which is self-explanatory:

"During the first three months of this year, we have moved 1294 tons of general freight through Grimshaw to Fort Simpson via the Mackenzie highway to a point 28 miles south of Hay River and west by winter road to destination. In addition to this, we moved 202 tons of freight from the Hay River area over the winter road. This freight consisted of cement, insulation, lumber, plywood and building supplies for shcool construction in Fort Simpson.

Our rates, per hundred pounds, were as follows from Grimshaw to Fort Simpson:

Class 100	Class 85	Class 70	Class 55
$6.00	$5.00	$4.00	$3.00

Truckload rates were $3.00 for truckloads of Class 55 freight and $3.50 for truckloads of freight classified higher than Class 55.

The last hundred miles of the winter road used was pushed through by Bruce Rome Ltd. of Dawson Creek, who moved a drilling rig weighing approximately 1800 ton from Fort Simpson to a lease 80 miles south of the Liard River."

That is the picture last winter on the movement of goods. They did not move from Nelson north to Simpson, they are not using that road, but they used the road for Grimshaw and the Mackenzie Highway. The letter says:

"To our knowledge, there was no traffic over-

land between Fort Nelson and Fort Simpson during this past winter season."

I asked that specific question.

THE CHAIRMAN: Who did you get that letter from?

MR. GUEST: Northern Freightways, Dawson.

THE CHAIRMAN: Would you mind our having that as an exhibit?

MR. GUEST: Not at all.

MR. FOUKS: I will get a copy for you.

MR. GRIMBLE: We will just confirm this. Actually the winter before last is the one we are familiar with but maybe last winter there was a change in the movement, we will check this now.

THE CHAIRMAN: How is a winter road along the river built, on the ice or on the shore?

MR. GUEST: I understand that the ice in the Mackenzie heaves and shifts and they have to build it on the shore. That is what I have been told.

THE CHAIRMAN: Does it follow the shore-line or built up on the bank?

MR. GUEST: I think the winter road is as the crow flies, I do not think it follows the river particularly.

MR. BISHOP: The Athabasca River is presently a problem to navigation during the months of September and October. Expenditures are made each year to keep the channels open, and light loads

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

and day time travel are necessary during low water. A harbour at Peace Point on the Peace River would provide better navigation from rail to Uranium City using Chenal des Quatre Fourches.

However, during high water the Athabasca River can be used satisfactorily. If the Tar Sands extractions process proves successful, it would appear logical to ship sulphur from the Tar Sands Plant to Uranium City via water transport. This could be handled only during high water periods. The need for any costly dredging and river improvements would thus be completely eliminated. Waterways could still be used during high water periods and for winter storage of vessels, etc. Since Fort Fitzgerald would no longer be very active, its facilities could be moved to Peace Point.

THE CHAIRMAN: When you say "since Fort Fitzgerald would no longer be active", that is on the assumption, isn't it, that the railway would take over all the freight?

MR. BISHOP: That is right, Mr. Chairman, that the portage would no longer be used.

THE CHAIRMAN: Now carried by Northern Transportation?

MR. BISHOP: That is on the assumption that the railway would take all freight bound for Great Slave Lake and north, that the railway would take it as far as Bell Rock Harbour.

THE CHAIRMAN: That brings you back to the question, doesn't it, of how much the railways can afford to take the freight for and how much they can do it lower than Northern Transportation?

MR. BISHOP: That is right, Mr. Chairman.

THE CHAIRMAN: We would like details to support that. That is part of what we were talking about yesterday. Perhaps we should leave it meantime.

MR. BISHOP: It is related to it, but there is the difference that there is a cost of portage to be eliminated.

THE CHAIRMAN: Could you get the -- this is another branch of the similar problem, isn't it? This deals with the freight that Northern Transportation is now carrying all the way up to Great Slave

Lake, because yesterday we were discussing the freight that they were carrying up to Lake Athabasca and across to Uranium City.

MR. BISHOP: That is right, Mr. Chairman. I would like Mr. Grimble tospeak to that, Mr. Chairman, but I should point out that in this case the problem discussed yesterday does not arise, certainly not to the same extent, because the disadvantages we discussed of navigation on the Athabasca are, of course, common to this route, too; and then there is the further disadvantage of the portage from Fort Fitzgerald to Bell Rock, plus the final factor that you do not have the long increase in distance that you have on the route to Uranium City.

You had a remark, Mr. Grimble, about Fort Smith.

MR. GRIMBLE: Yes. I don't think it is realized how much tonnage goes to Fort Smith itself which has to now move sixteen miles over the portage. If I remember correctly, it was in the order of 12,000 tons from the south and 1,200 tons from the north, which in this case would be moved through by rail.

COMMISSIONER GAINER: This 12,000 tons -- is that the total movement that goes across that portage there?

MR. GRIMBLE: No, this is the total movement to Fort Smith. It moves 16 miles out of 25, and this

would go by water, and it is actually 10,000 tons, roughly 10,000 tons, varies from 10,000, 11,000, 12,000 in the last three years. So it means that there is about 12,000 tons destined for Fort Smith that would go by rail from Fort Smith, and there is a tonnage that would go to Fort Smith for transshipment in the winter time to Uranium City, and this isn't a factor, of course, of rail movement to Peace Point; it would go in the winter time to Fort Smith.

THE CHAIRMAN: Any freight that now goes to Uranium City during the winter has to go by air?

MR. GRIMBLE: That is right.

THE CHAIRMAN: You were going to give us the air figures.

MR. BISHOP: May I proceed?

MR. FOUKS: Mr. Chairman, I wonder if I may for a moment. I couldn't remember whether -- did not Major Charles indicate that, in his opinion, the railroad would not go to Fort Smith but would be to the west side of Fort Smith by 25, 30 miles?

THE CHAIRMAN: I think he also said that a spur would be built into Fort Smith.

MR. FOUKS: For that tonnage.

THE CHAIRMAN: Yes.

MR. FOUKS: I think he said only if there was an additional tonnage to warrant the additional expenditure.

MR. GRIMBLE: Would you like to deal with this

in detail now? I wondered if you wanted to deal with this aspect of a spur into Bell Rock in detail at this time. We have some information on that that we thought you might be interested in.

THE CHAIRMAN: We will adjourn now and go into this this afternoon.

---Luncheon adjournment.

---On resuming at 2.00 p.m.

MR. BISHOP: I think, Mr. Chairman, when we finished you had asked some questions or Mr. Fouks had asked some questions about the location for the proposed eastern route as shown by the railways as opposed to the location shown in the brief we are presenting, and the question of a spur or a diversion to Bell Rock Harbour came up and I think that was where we adjourned, at the point at which we adjourned. Mr. Grimble now has more information on that.

MR. GRIMBLE: You might remember, Justice Manning, when we were talking to Major Charles he cleared up the matter regarding his evidence that he had stated during the talk that it would require an additional 40 miles of railroad if we were to bring the railroad from Peace Point over to Slave River, with the thought that this would make the railroad along the Slave River more accessible to this area. He thought this would be a matter of an additional 40 miles to go over to Slave River and back to Fort Smith and Fort Fitzgerald on this route. He also stated at this time that he roughly estimated it would be a spur in the order of 20 miles from Bell Rock Harbour out to the location that he had selected. The plan marked No. 2 is, of course, diagramatic and it is shown as going into Bell Rock and continuing on to Pine Point. There are alternatives

which are matters of detail. We might look at them on this map.

THE CHAIRMAN: That is one that you have just put up and perhaps should be marked as an exhibit.

---EXHIBIT NO. 52-Q: Map.

THE CHAIRMAN: Exhibit 52-Q is a map Mr. Grimble has submitted which indicates proposed railway routes in the neighbourhood of Fort Smith. Is that right?

MR. GRIMBLE: Yes, sir. This is diagramatic again, this map 52-Q is diagramatic. The southern boundary of the map is Pine Lake. There is a landmark, Pine Lake, and we have had to project the map, and the scale is one inch to one mile. There is a road from Pine Lake to Fort Smith, and the railway location is diagramatically shown following the road and cutting into Bell Rock and extending on to Pine Point. Per map 2, the alternative, of course, is the location on the shortest route to Pine Point, with a spur into Bell Rock. This is the 20-mile spur that Major Charles mentioned. The distance by looping the line and coming into Bell Rock this way is 16½ miles; with additional railway mileage, the spur line is 20½ miles.

THE CHAIRMAN: By looping the line you get an additional 16½ miles?

MR. GRIMBLE: Yes, over and above the

direct route. This is a matter of detail. I am sure the railways have studied this problem and assessed whether they wanted to penalize the long haul by 16½ miles or whether the light traffic would be better served by a spur.

The tonnage which would use this spur, assuming that the direct route is used and a spur is run into Bell Rock, would be in the order of 80,000 to 90,000 tons on the spur, on the basis of details covered in our brief. This would give some indication of the use of this facility.

THE CHAIRMAN: Is that regarded as sufficient, a 20-mile spur?

MR. GRIMBLE: I don't know what I can base my decision on that in regard to. Again we are back to the question of whether the railways justify it in the first place, and the traffic would be 90,000 tons at this time. What the traffic would be in the future and whether the railway is justified is another aspect of the problem.

COMMISSIONER GAINER: You would assume it would all go through Bell Rock?

MR. GRIMBLE: Yes, it would all go through Bell Rock Harbour.

MR. BALDWIN: I wonder what page of your brief that is, 80,000, 90,000 tons?

MR. GRIMBLE: I don't know what page. There is reference to total tonnage.

MR. FOUKS: Do I understand correctly that you disagree with Major Charles in his approach, that it would not be proper -- I will use that word advisedly -- to go to Bell Rock? Is that the position you take compared to Major Charles?

MR. GRIMBLE: In our discussion with Major Charles and Justice Manning and myself, he pointed out that there was a misunderstanding at the time he made these statements. He was talking about going out to Slave River and coming back to here.

MR. FOUKS: In the transcript at page 1113 he says: "The closest point to Fort Smith, the Administrative Centre for the Northwest Territories, would be 25 miles. To swing easterly, to be closer to the Slave River, would add considerable distance to the through line."

THE CHAIRMAN: I don't think there is any difference between what it says there and what Mr. Grimble says, except that Major Charles says 25 miles and Mr. Grimble says 20.

MR. FOUKS: It seems to me that Major Charles said that the closest point would be to go west of Bell Rock.

THE CHAIRMAN: I think, Mr. Fouks, Major Charles was talking rather casually about the thing, rather than details. That is the impression I had, because this was the first time to those of us on the Commission that it had been suggested that the regular

rail route might not go through Fort Smith, and we were more concerned with the fact that the route proposed wouldn't go through Fort Smith.

MR. FOUKS: I may have misunderstood it. On page 1115 there is a question by yourself: "If the throughline were to go far enough east to touch Fort Smith or Bell Rock Harbour, I suppose that would add some considerable distance to the overall route?" The answer was: "Yes." Q. "Would it add 50 miles -- 25 miles each way?" A. "Well, it would angle across: oh, probably, you might say 40 miles."

MR. GRIMBLE: He actually pointed over to Slave River here, 40 miles. He said: "I thought you were asking if I went over here to the Slave River."

MR. FOUKS: The question was: "Would it add 50 miles -- 25 miles each way?" And the answer was: "Well, it would angle across: oh, probably, you might say, 40 miles. You wouldn't go out at right angles. It would probably be cheaper to build a throughline to the spur, but I would think, as far as Fort Smith goes, that it is just a case of servicing the town, and a good road would do that to the station opposite."

Now, I felt that was Major Charles' position. I wasn't in that conversation, of course.

THE CHAIRMAN: How does that differ from what Mr. Grimble is saying?

MR. FOUKS: I can't see the 16 miles.

THE CHAIRMAN: He is indicating that the difference might be 16 miles.

MR. GRIMBLE: The actual distance measured is 16 miles.

THE CHAIRMAN: Major Charles estimated 40, but I think, if you were here, he was certainly indicating it in a pretty casual sort of way.

MR. FOUKS: I thought he may have measured it. It may have been very casual, Mr. Chairman.

THE CHAIRMAN: He indicated if you go around that way you don't double it; you have to take something off, and he took off ten miles. I think before we do any calculations we will have to measure it. Would you like to check it?

MR. FOUKS: No, Mr. Chairman. I am satisfied, Mr. Chairman.

MR. BALDWIN: As I understand it, the way Mr. Grimble has laid it out there is 16½ miles. His alternative there is 16½ miles. I think that is more than what it would be going through the straight through route.

MR. GRIMBLE: I might mention that Major Charles was talking about it and he didn't consider this aspect of the matter at all prior to the hearing and he was thinking of the tonnage that would go from, say, a siding here from the airport to Fort Smith. I don't think he knew the figures, but he was thinking of 12,000 tons to Fort Smith and probably 5,000 or

6,000 or 7,000 tons to Uranium City. So he was thinking of, say, 20,000 tons, and his thought was, although he didn't know the tonnages, that this sort of movement could be handled by truck.

Now, I was leading up to there, that if this was a transshipment point this would be in the order of 80,000 tons a year.

MR. BALDWIN: Your brief on page 48 says 35,000 tons of general freight to Great Slave Lake.

MR. GRIMBLE: And then there is the oil traffic, petroleum traffic that would go this way, plus the traffic into Fort Smith, plus the traffic on the winter road, plus some lumber.

MR. BALDWIN: I was just going on your statement in the brief. You said that the 35,000 tons -- you put that for both routes -- would go on the west route and 35,000 tons of general freight would go on the east route, and I added that 35,000 tons to the 12,000 you said would go into Fort Smith. I was wondering how you made up the difference of 90,000 or 100,000.

MR. GRIMBLE: These are things which I am putting in now.

THE CHAIRMAN: Ninety thousand tons made up of 35,000 tons general freight, 12,000 tons to Fort Smith?

MR. GRIMBLE: We have 25,000 tons of petroleum products, oil, that now goes through Hay

River, which we would assume would go through Bell Rock. Thirty thousand tons of miscellaneous general cargo -- that probably makes up the 35,000 tons you mentioned -- an additional 10,000 tons of l.c.l. general freight.

THE CHAIRMAN: Why the additional 10,000 tons?

MR. GRIMBLE: Well, I have separated carload shipments from general freight, l.c.l. Make it 40,000 tons general freight.

THE CHAIRMAN: Instead of the 35,000 that you mentioned previously?

MR. GRIMBLE: Yes; and 6,000 tons of freight from Fort Smith which moves up from the south at present, up to Waterways through the portage.

THE CHAIRMAN: I thought it was 12,000 tons.

MR. GRIMBLE: That includes the general freight, too. I am coming to it here. Then there is 4,000 tons of oil for Fort Smith.

THE CHAIRMAN: That comes from the south?

MR. GRIMBLE: Three thousand three hundred and something comes from the south and 1,300 from the north. I might add that these are very round figures. I have rounded them out, and in each case I have rounded them out downward pretty well. Oil, 4,000 tons to Fort Smith; 1,000 tons of general freight, which we would consider would go from Fort Smith on to Uranium City, and 6,000 tons -- this is l.c.l., that first one -- and 6,000 tons of carload lots of general freight again, from Fort Smith on to Uranium City.

THE CHAIRMAN: That is 7,000 tons general freight?

MR. GRIMBLE: Yes. There is a lumber movement from the Denney Logging onto this.

THE CHAIRMAN: How much do you calculate that to be?

MR. GRIMBLE: I didn't put a figure on that. It would be a matter of estimating how much would go to Pine Point and how much would go south. Denney figured on transporting 20,000 tons themselves, and it would all go over on the spur; we would just have to guess at that figure.

THE CHAIRMAN: You have 40,000 tons general freight?

MR. GRIMBLE: Yes.

THE CHAIRMAN: Twenty-five thousand tons of petroleum products?

MR. GRIMBLE: Yes.

THE CHAIRMAN: Six thousand tons general freight for Fort Smith?

MR. GRIMBLE: Yes.

THE CHAIRMAN: Four thousand tons of oil to Fort Smith?

MR. GRIMBLE: Yes.

THE CHAIRMAN: And 7,000 tons for Uranium City?

MR. GRIMBLE: Yes, plus the lumber which we have to estimate. Say 10,000 tons of lumber would be

a fair guess, I think.

THE CHAIRMAN: That makes it 92,000.

MR. FEEHAN: This figure is given to you on the assumption that they are going to close down the highway. Certainly there will be some materials going north on the highway.

MR. GRIMBLE: We have assumed 25,000 tons would go up to Hay River by the highway.

MR. BALDWIN: But even at that the general freight, what Mr. Feehan has there, from Northern Transport it seems to me it is completely at variance and the route that has general traffic going to Great Slave Lake and the DEW Line and Port Radium comes to only 18,000 tons.

MR. GRIMBLE: Then there are all the transportation companies as well.

MR. BALDWIN: Yellowknife Transportation?

MR. GRIMBLE: To Yellowknife and down the Mackenzie.

MR. BALDWIN: I did not know they shipped down the Athabasca and that system and across the portage.

MR. GRIMBLE: No, they do not. What we are saying here is there will be a movement, some of the truck movement which now goes by the Yellowknife Transportation Company up the Mackenzie Highway and part of that will move over and go up the rail to the harbour plus some of the movement or all of the movement that would go across the portage would then go by the rail. It would not go by water and by portage,

it would go by rail. That still left 25,000 tons to go up the highway.

COMMISSIONER GAINER: You have taken half of that assuming half of that moving by rail?

MR. GRIMBLE: Yes, we moved the oil because we were of the opinion the oil would move by rail rather than by truck.

COMMISSIONER GAINER: How do you mean oil? Diesel oil?

MR. GRIMBLE: Tankers.

COMMISSIONER GAINER: I was not clear on that. You are assuming all the petroleum products movement that now takes place on the Mackenzie Highway will move by rail on the east. Half of the total tonnage you have left with the highways general freight?

MR. GRIMBLE: Yes. Actually it is hard to say what the split will be. We had to make assumptions on the split and it is difficult to decide.

MR. GORDON: Mr. Chairman, I would like to point out one thing that in a lot of these assumptions that are being made people seem to assume that all this Yellowknife traffic and all the Uranium City traffic, in fact all the traffic to the north originate in Edmonton. They are basing it on a movement by truck from Edmonton to Waterways and a movement by truck to Hay River, but that is not the case. Much of this traffic, particularly your car load traffic originates in car load form in eastern Canada and is already on

the rail. That type of traffic, in my opinion, would continue on the rails as far as it would go because the incremental mileage on the railway would not be as much as the local mileage of a truck and therefore we have assumed that a lot of this traffic will continue on the rail, seeing it is already there if the railway is built.

COMMISSIONER GAINER: That will be true on all the existing rail movement on the east route that has already been absorbed in your estimate. If you are speaking of south of Edmonton movements, you are speaking of what would be taken from the west route to the east. Now, how much of the petroleum products would originate anywhere but in Edmonton?

MR. GORDON: I would say this, as far as the petroleum products are concerned and if the railway extends what they have done to all of western Canada, with the exception of the Hudson Bay railway and the portion of the NAR in Waterways, that is, all the three prairie provinces not including B.C., there has been in effect since the 14th of September an agreed charge on petroleum products which is making it particularly difficult, almost impossible for the truckers to compete with them. I happen to know quite a bit about that because my largest client is an oil refiner and I am looking right now as to whether I should advise him to immediately get into this petroleum products tariff. Their major product

is asphalt and is not covered under the agreed charge, but they do ship a good deal of diesel fuel around and it looks as though we cannot compete with the railways on a truck movement. Four of the major companies have already signed up for the agreed charge which requires them to ship 75 per cent of their traffic by rail. I do not think there is any question that wherever competition exists to the railways that they will extend that agreed charge on that basis. It is a pretty safe assumption that at least 75 per cent, if not all of that traffic will travel by rail, because it will be cheaper.

COMMISSIONER GAINER: What would you say about the state of competition that would exist between the rail movement, let us say and trucking petroleum products in the wintertime for petroleum products bound for Yellowknife? Is it not true that particularly when the highway is completed to Yellowknife you may find a good deal of petroleum products movement on the west that could not move on the east?

MR. GORDON: I would have to know a little bit more about some of the refineries and distributing company facilities for handling those companies. In many cases the oil companies find it cheaper to move by rail into their bulk stations or to storage at the end of steel and handle the shorter distance by truck under the new arrangement.

COMMISSIONER GAINER: That is on the

eastern route they might ship by rail and water in the summertime and not ship in the winter.

MR. GORDON: Well now, I would say that either route, as far as practicable or feasible by rail it would be either to Pine Point or Hay River for Yellowknife traffic. They would only be that far by rail and then winter road it to Yellowknife if they required it there, because the economics of the thing are worked out that we know this new agreed charge system, it is something that is not entirely clear yet - as I say, the agreed charge was only made effective on the 14th of last month. Four of the major refineries have already signed up under it and I know that the other refineries which so far have not signed up are looking very closely at it including the one I have as a client. My thinking now is it will be practically essential in order to improve competition of other refineries which are in the agreed charge that those who are not will eventually have to go under it. If that is the case the traffic will move by rail, the petroleum traffic in tank car lots will move by rail as far as they can conveniently. I think, particularly on the distance such as we have from Edmonton to those points which would be a matter of between 500 and 700 miles, the difference in the rail and truck costs are very considerable.

COMMISSIONER GAINER: Do you know, Mr. Gordon, how much of the other traffic handled on

the Mackenzie Highway, a rough estimate of how much of it would originate from points more distant than Edmonton?

MR. GORDON: I would say a fairly high percentage. I would not like to put a percentage figure on it because I have not seen the figures for some years. I know when I was with the NAR and audited the rates there was a considerable portion originated in car load lots in eastern Canada which moved direct through to Waterways. I presume that situation has not changed relatively, but I would not like to attempt to put a percentage figure on it, because I would be simply guessing and I do not think you guess at this time unless it is based on some kind of an analysis. It would not be of any value to the Commission.

MR. FOUKS: Do you know whether the agreed charge applies on the oil to Waterways?

MR. GORDON: Not at the present time. There are two sections of rail in the three prairie provinces in which this agreed charge does not apply. That is the Hudson Bay railway north of The Pas, Manitoba and the Northern Alberta railway north of Lac la Biche. That is for the simple reason that at the present time there is no competition. If the railway was extended up the east route as we propose then there would be some water competition and the railways would meet that. If it goes up the Mackenzie Highway, if the rail goes up the west

route you have the very competition which the agreed charge was put in to get rid of. Therefore, you will have - I am quite sure the railway will have to meet competition by both routes or either route if either route is given.

COMMISSIONER GAINER: From something that was said the other day in your evidence we recognize that the competitive factor is an important one in the establishment of rates that are less than the maximum set by the Board of Transport Commissioners. However, at another stage you mentioned it may be necessary for the two carriers, let us say the rail carrier and the water people to somehow get together and allocate the revenues or work out rates that would be something less, or at least not more than equal to the current rates.

MR. GORDON: I believe that would be a normal procedure.

COMMISSIONER GAINER: How would you think the competition force would operate at all if you can have two carriers, presumably independent carriers, making this kind of an arrangement. In particular, how would you think each carrier would be willing to give ground?

MR. GORDON: I believe the usual thing is for both to give some ground. Now, one will sometimes give more than the other, but they usually both give some ground. Now, an agreement between

the Northern Transportation Company and the railways or whoever builds this railway would eliminate the Northern Transportation Company service, possibly from Waterways. It does not eliminate the Waterway and the railways not only meet actual competition but they would meet potential competition. If the two carriers presently involved in the service decided to make an arrangement in order to present a third carrier coming in they would make an arrangement which would be equivalent to the rate which could be charged by a competing carrier by water all the way. The railways very often do meet potential competition. A very good example of that is some of their trans-continental competitive rates to B.C. ports. They published competitive rates to meet potential competition. Actually much of that freight is not as yet moved by any competitive factor but if the railways were to put their rates up immediately there would be some company ready to pick that up, and they keep their rates low to keep that kind of competition in effect. They would do the same were a waterways in existence.

COMMISSIONER GAINER: Just some instances of it.

MR. GORDON: Is sufficient, yes.

COMMISSIONER GAINER: Am I right in assuming that there are instances where the railroad will charge summer and winter rates and the rates for summer - some seasonal rates can be lower

than others in summer and winter - -

MR. GORDON: Not to my knowledge. I could not think of one at the moment. There are many hundreds of freight tariffs in effect in Canada and I do not have them all in my office, but it is possible there may be some. However, I cannot think of one at the moment.

COMMISSIONER GAINER: There would be nothing in the regulation to prevent this as long as the competitive rates, even though they may be seasonal are less than the maximum?

MR. GORDON: There have been in the past instances of that, but I do not know of any presently in existence. What the railway usually does is, they publish a rate with an expiry date on it and republish it the following year if they wish to meet the competition the following year. Usually they are not indicated as being summer or winter rates, they are just quoted for the season, and at the end of the season, the rate is automatically cancelled out. There is a note in the tariff to the effect that the rate expires on a certain date.

COMMISSIONER GAINER: This happens for potatoes and things of that sort?

MR. GORDON: Yes, quite a few things.

COMMISSIONER GAINER: The other question is on petroleum movements going into Uranium City, petroleum products. Would you say that the presence

of the Mackenzie Highway competition is apt to move the railroad in the direction of agreed charges for Uranium City movements of petroleum products?

MR. GORDON: I would say the possibility of water competition -

COMMISSIONER GAINER: I was thinking of the winter particularly.

MR. GORDON: To Uranium City on the matter of petroleum products instead of petroleum products moving from Fort Smith, I do not think they would go into an agreed charge on that basis, but they would go into possibly a straight competitive tariff to equalize any potential competition via water, but not on an agreed charge basis. It would be on an open tariff, the same as their general merchandise and all other grades would be.

COMMISSIONER GAINER: In other words, the Mackenzie Highway would not operate as the competing force?

MR. GORDON: The existence of a waterway there which is navigable and as long as it remains and is navigable, there is potential competition and I think the railways would meet it. I do not think there is any question at all about that. They have demonstrated that. I do not think I am exaggerating in saying there are hundreds of thousands of instances in Canadian freight tariffs where they are meeting water competition or potential

water competition and their tendency to meet competition, particularly potential competition is being very greatly intensified in the last two or three years. I think that is going to accelerate rather than diminish because the railways now are endeavouring to get every pound of traffic back on the rails that they can possibly get back and they are making the rates so that it will be there.

MR. FOUKS: Mr. Guest can give you an example if it is of any assistance on the question of seasonal rates.

MR. GUEST: The outstanding example described by Mr. Gordon are the water competitive rates on the Great Lakes, the lake and rail rates which just operate during the open season and they end on December 1st and open up again on April 15. They go back to the highest rate during the wintertime and water competition rate in the summer.

MR. GORDON: That is done by a cancellation date rather than showing it as a summer and winter tariff.

THE CHAIRMAN: Mr. Gordon, you emphasized yesterday and today several times the fact that the railways will meet competition and potential competition by lower freight rate, sufficiently. Is that significant on this question of which route the railways would follow, would you say, or were you speaking only in relation to isolated matters?

MR. GORDON: I was not speaking particularly, because there was competition on both routes and I think whichever route there is the railways would reduce the rates some. Now, until a full study was made of the traffic potential and possibly a little experience with the type of traffic which will be moving over those routes, I do not think today even the railways could say just on what conditions they were willing to meet competition.

THE CHAIRMAN: The reason I ask the question is this: the water rate which would compete with the railroad along the east is only open for a few months of the year, is it not?

MR. GORDON: That is true, but I think in this case, in a matter like that where an agreement was made with another carrier, as it would have to be to complete the full movement to Uranium City and the Athabasca ports, I do not think it would be made on a summer basis. If it were it would be for the navigation season. The same situation could apply to Uranium City. It would not increase the cost to the people in the area because they could move into the summer route these items which they require for inventory and follow the same practice.

THE CHAIRMAN: Move under the summer route and store them? That is what the Uranium City people are complaining about.

MR. GORDON: That is true. I do not know. I am not in a position of saying what the traffic officials

of a railway do. I know what I would do in that position and I think I am quite confident that if the railways put in rates over that route in conjunction with some other carrier, the Northern Transportation or somebody else who might be prepared to take that traffic, it would not - -

THE CHAIRMAN: You lost me. You started off by saying you did not know what the railways would do and then you say you are confident they would do something.

MR. GORDON: I am confident they could, but I could not guarantee it.

MR. GORDON: I am quite confident they would, but I can't guarantee it.

THE CHAIRMAN: How do you reconcile that with your statement a few seconds before that you don't know what the railway is doing?

MR. GORDON: Well, I couldn't be definite that they would, but it is my opinion, based on action previously, that they would, and I have had considerable experience in negotiating rates with the railways over the past twelve years, and it is very rarely a week goes by that I don't negotiate a rate one way or another. I know that the railways are very anxious to meet competition and to keep traffic on the rails, and in order to help out an industry or a territory they have quoted rates where competition doesn't actually exist which are quite lower than their normal rates in order to help out industry in that regard, and I have sufficient confidence in the railway people that they would, but I couldn't guarantee anything because I don't know what definitely is in their minds. I was hoping, as I am sure theCommission was, that the railways would clear some of these points up, and I can only go on my knowledge in dealing with the railway people and calculate on that experience.

MR. FEEHAN: May I ask a question, sir?

THE CHAIRMAN: Yes.

MR. FEEHAN: You told us yesterday, Mr. Gordon, I believe, if my memory is correct, that the

present transport charges between Waterways and Uranium City were something quite a distance below what were permitted by the Transport Commissioners.

MR. GORDON: Yes.

MR. FEEHAN: Now, this is water at the present time?

MR. GORDON: Yes.

MR. FEEHAN: Do you know of any case in Canada at the present time where the railways are actually operating below what is actually allowed by the Transport Commissioners?

MR. GORDON: That is very easily answered, sir. Every commodity rate, every special class rate is below what is permitted by the Board, and that covers about 80 per cent of the railway.

MR. GUEST: Ninety-five per cent.

MR. GORDON: Ninety-five per cent.

MR. GRIMBLE: I would like to say something about the competitive position of these two routes. While we are dealing with it now I would like to speak on it. With an eastern route, of course, we have the possibility of winter traffic into Uranium City, a combination of rail and winter traffic into Uranium City, which would put Uranium City on a competitive basis with water traffic from Waterways or a rail-water movement from Peace Point, so the winter haul competes with the summer haul. The other possibility, of course, is that a third carrier would start

out at Peace Point which would allow a joint rate from Waterways to Peace Point if there was a water haul on the Athabasca in competition with this movement. I might add that carrying it further to this point or to Bell Rock there is a competitive movement along the water routes through the Mackenzie highway throughout the water route. In other words, the railway is not put in a position where it has a captive market. So regardless of the time of the year on the eastern route, there is always the competitive aspect, the railway is faced with -- the people of Uranium City or Fort Fitzgerald on the Great Slave Lake have competition in twelve months of the year. This is in contrast with the western route where the railways are not offered any competition whatever or a chance to reduce their winter inventories. If we realize that competition is in the picture at all times, then this is an academic discussion regarding these rates.

COMMISSIONER GAINER: I want to say first of all that I don't want it thought that we are thinking that there isn't anything particularly to your case that brings these questions in my mind, but the thing that strikes me is that I can well see how the competitive forces are working on the route, but I have a certain amount of difficulty in following that argument in respect to the Lake Athabasca traffic where your highway from Fort Smith over or your Northern Transportation carrier, say, from Peace Point

seems to me not to be competing factors but rather complementing ones. This strikes me as being a rather different situation, because there is nothing that is going to force either of those carriers to adjust to anything below the Board of Transport rates, and there is no assurance that the Board of Transport Commissioners necessarily will set a standard rate, and I can't see how the highway complementing the rail route from Fort Smith on or a water carrier that completes the movement would act as competing forces.

MR. GRIMBLE: The western route, of course, provides no access to Uranium City whatsoever other than what already exists, so there is no competition involved whatsoever. The answer to the problem operating out of Waterways would undoubtedly be a third carrier operating from Peace Point. This would be necessary to your competitive position. This would then give Uranium City the best service at the lowest price by virtue of these competitive routes, plus a winter road service.

COMMISSIONER GAINER: Even with a third carrier at Peace Point, what is there about this now, how would this pressure act on the railroad to reduce their rates to such a point that this fourth or fifth carrier might get that freight into Uranium City below any established rate?

MR. GRIMBLE: If the water route still exists and the railways don't give a good rate from Waterways

to Peace Point, then with a third carrier moving between here there is no reason why a carrier wouldn't take over and undercut. From Peace Point, of course, the third carrier would move in here with a different type of equipment which would be twice as efficient and work out a joint rate with the railway which would be far better than the rate from Waterways.

THE CHAIRMAN: That is if these assumptions you were making earlier came about.

MR. GRIMBLE: What assumptions were these?

THE CHAIRMAN: That you can travel via Peace Point to Uranium City at a lower cost than you can travel from Athabasca River to Uranium City.

MR. GRIMBLE: It is obvious you are going to travel cheaper here, and the cost is not the real factor, because with a $700,000 profit by the Northern Transportation people, if they wanted to meet competition, there is no reason why they couldn't lower their rates; with a $700,000 profit, I don't see any reason why they can't compete with it.

COMMISSIONER GAINER: I don't see how it would affect it out of Peace Point.

MR. GRIMBLE: An operator coming into Peace Point could considerably lower the water rate from Waterways, and the railways, I am sure, by virtue of competition, would pick up the difference.

COMMISSIONER THOMSON: How much more efficiently could you get it than is now being used?

MR. GRIMBLE: I should say a more efficient operation which would cover both ---

COMMISSIONER THOMSON: You mean you are criticizing Northern Transportation's operations?

MR. GRIMBLE: No. In this case the propellor is operating inside a tunnel. You would have a different type of vessel for that operation; you would probably improve on that type of situation, plus the fact of deeper drafts and heavier loads.

COMMISSIONER THOMSON: I still can't see where competition would work from Fort Smith to Uranium City by a winter haul. What is it competing with in the winter time?

MR. GRIMBLE: It is competing with the inventories. They have the option of hauling in the summer and storing a winter inventory, but instead of that in Yellowknife they haul round the winter road. The same thing would happen in Uranium City; they would weigh that against the winter haul.

COMMISSIONER THOMSON: How is that going to benefit Yellowknife, did you say?

MR. GRIMBLE: I illustrated the fact that in Yellowknife they lower their inventories and they think it is worth while paying a premium to have winter traffic in there. It is the inventory balanced against the low water rate.

COMMISSIONER THOMSON: That wouldn't benefit Yellowknife.

MR. GRIMBLE: No. I was illustrating what is happening in Yellowknife would happen in Uranium City.

COMMISSIONER THOMSON: What is happening in Yellowknife?

MR. GRIMBLE. Grimshaw Trucking are operating a winter road, and they hauled last year 7,000 tons of freight. The people of Yellowknife apparently thought it was worth paying the extra premium dollar to have this hauled in the winter time to avoid the inventory costs. If this was landed up here people would be content to have big inventories rather than paying for hauling round in the winter time. So it is a question of transportation costs, whether they want a big inventory or pay for the winter haul.

COMMISSIONER THOMSON: I haven't measured it, but just looking from Waterways to Uranium City, they could put in a road there which would be much shorter than that which would benefit Yellowknife so much.

MR. GRIMBLE: All I can say is that it isn't done.

COMMISSIONER THOMSON: It would look simpler to put a railroad from Waterways. That is the road that wiggles -- that can be a longer route to Uranium City.

MR. GRIMBLE: Well, one of the factors is that there is no road into Waterways, so your winter road is actually starting at Lac la Biche. There is a highway from here to Enterprise and a highway from

here to Providence.

COMMISSIONER THOMSON: We could build a highway from Waterways. That is what the Waterways people would like.

THE CHAIRMAN: You are talking about two different things. You are referring to the highway from Lac la Biche to Waterways.

MR. GRIMBLE: Yes. There is considerable mileage there; it would be quite a problem. I don't think anyone has entertained that.

COMMISSIONER THOMSON: You could cross this side of Fond du Lac. It wouldn't be hard to keep open in the winter time.

MR. BALDWIN: Mr. Chairman, before you leave this, I would like to recall to your attention what Mr. Gordon Taylor said. He said that the two governments have reached an agreement with regard to a road from High Level to Peace Point which would be constructed as a road to resources programme, which would be of a quality at least equal to the Mackenzie highway, not the highway that would be reconstructed. I haven't computed the costs, but in dealing with competition, if the western route was chosen it would go to High Level and from High Level to Peace Point by this proposed highway. It is not something we are thinking as a supposition, but Mr. Taylor said that, in his opinion, it did leave enough for the completion of that particular road.

COMMISSIONER GAINER: Could I ask one small question? Mr. Grimble, your position generally would be that, in order to assure the operation of competition in the rail rate structure here, some water operation should at least be maintained out of Waterways, that there should be this possibility. Would that be right?

MR. GRIMBLE: No, sir. I can summarize what I was saying in a lot shorter words than I used. Uranium City's position would never be worse than what it is. This is summarizing it very briefly. There are also other advantages which we pointed out. The position would never be any worse than what it is. It would always be better.

COMMISSIONER GAINER: Even in the absence of any water transportation out of Waterways?

MR. GRIMBLE: Yes. They would never make this shipment unless there was a third carrier moved in here. It would never be any worse, and the winter road feature would improve it considerably. So we always know we are going forward -- something better.

MR. FOUKS: Doesn't that depend on the rate to Peace Point?

MR. GRIMBLE: No, not necessarily.

MR. FOUKS: The rate to Peace Point is much higher than it is to Waterways.

MR. BISHOP: Mr. Chairman, doesn't all this go back to what we were discussing yesterday and what I attempted myself to point out in a few words before

we started this section, that in the first place we are not attempting to show that there is $600,000, or any other specific figure, that will accrue to the railroads as revenue resulting from the Uranium City traffic, but merely to show that, by means of the competition, actual and potential, and competition as to times, the shippers in Uranium City cannot be prejudiced, and can, to a certain extent, an extent which we can't determine in terms of dollars, have their position improved considerably. The first form of competition is the Waterways to Peace Point and Peace Point to Uranium City route as competing with the present, and always potential, Waterways to Uranium City water route.

Now, that only applies in the summer. The summer traffic on the same route which is subject to competition, as already shown, competes, in effect, with the winter traffic from Waterways to Peace Point or Waterways to Fort Smith and over a winter road to Uranium City in the sense that the shipper now has no choice; he takes the summer route and he stockpiles. In this case he would have the choice of doing what he is doing now, or, if it is more advantageous to him under the rates, whatever they turned out to be, he can pay the extra cost and get the advantage of being able to get certain supplies in in the winter; and it seems tome, with respect that that seems to be our position, without having to go into the details of what savings we can prove can be made from Peace Point

to Uranium City, for instance. The thesis still stands, that the position of Uranium City cannot be prejudiced and is bound to be helped. To what extent it will be improved is, undoubtedly, open to contention, but it is not a point upon which our main argument rests.

THE CHAIRMAN: It may not be a main argument but it is one we did spend some time on and I would like to clear up some things in connection with it. You are saying now, are you not, that the position of the people in Uranium City must not be allowed to deteriorate?

MR. BISHOP: I think that is right.

THE CHAIRMAN: Then you mention the competition there would be to the railway route and you mention the present waterways route as being one of the competitive elements. Does that not then assume the waterways route, the Athabasca River will be kept in its present condition, that is the dredging will be continued so that summer transportation along that river will be continued because if the transportation system is not there, if you take the facilities out and take the barges off there is not any competition. There is perhaps a possibility of somebody setting up a competitive system, but really the competition is not there unless the facilities are maintained at Waterways and the equipment kept on the river.

COMMISSIONER GAINER: Just on that first point that Mr. Bishop raised, I think it is not quite clear that the position of Uranium City cannot be prejudiced in the absence of water operations out of Waterways. That is something I would like to toss around.

THE CHAIRMAN: I think perhaps this is a

convenient time to take a short recess.

--- A short recess

THE CHAIRMAN: Yes, Mr. Bishop?

MR. BISHOP: Mr. Chairman, I think before the adjournment you had brought up the question of what would happen if the dredging were to be terminated on the Athabasca so that there was in fact no carrier.

THE CHAIRMAN: And suppose facilities were moved away from Waterways.

MR. BISHOP: You mean the dock and so forth?

THE CHAIRMAN: Supposing the present Northern Transportation services were discontinued.

MR. BISHOP: Well, the answer to the first part of the question I was going to make was for many years transportation was carried on the river without any dredging. The dredging has undoubtedly increased the efficiency and probably increased the length of time transportation can be carried on, but the mere fact that dredging was stopped would not preclude any carrier from carrying on operations if the freight rates that were set up by the railroad and whatever carrier, whether it was Northern Transportation or somebody else from Pine Point, if their combined rates were so high that it made competition attractive, the competition could step up.

THE CHAIRMAN: If they were so high, but suppose they went up 25 per cent.

MR. BISHOP: I am not a freight rates man and I could not tell you.

THE CHAIRMAN: Does not your argument which you advanced to us proceed on the assumption that the present Northern Transportation facilities must be maintained if we are going to have that competition which you rely on so strongly to support your argument. If you are going to have that competition, must not things be maintained pretty much as they are now along the Athabasca River?

MR. BISHOP: I do not think that is necessarily true. Mr. Gordon has pointed out to us, for instance, that the classic example of water transportation which effects us all so much here is the Panama Canal route to Vancouver. Most of the products, certainly many of the products which enjoy a competitive rate to Vancouver probably have never been carried by boat from the eastern shipboard to the West Coast. It is the potential competition that is the saving factor and limits these lengths to which the existing carrier could go.

THE CHAIRMAN: Did that happen before the Panama Canal was completed?

MR. BISHOP: I am afraid I could not answer that. I think Mr. Grimble could say something about actual facilities at Waterways.

THE CHAIRMAN: Before we get on that, I would like to confine ourselves at the moment to your argument.

After all, it was your argument. You say that because the Panama Canal is operating it is potential competition and the rates are low. I quite agree. It also seems to me that because Northern Transportation has a fine transportation system or an efficient - well, a transportation system from Waterways to Uranium City, that is competition. But, if the Panama Canal were closed, suppose it were destroyed, I am not so sure that the possibility of it being re-opened would move freight rates down, because as I understand it the freight rates did not go down until the Panama Canal was completed or almost completed. Mr. Guest, do you know about that?

MR. GUEST: Yes. The competitive rates were as the result of the Panama Canal and in this case I made a little study a couple of years ago about the influence the Panama Canal had on the freight movement and since the war, I have not got the figures with me, but I can get them - since 1947 there has been a continuous increase in the tonnage moving to the West Coast through the Panama Canal as the freight structure increased relative to water rates. Our rail rate structure has increased more rapidly than the water rates structure, its tonnage has increased and if rates go up again I am sure there will be another increase in tonnage.

THE CHAIRMAN: Mr. Gordon agrees with you. I think the rates came down because the Panama Canal

was built, not because it could have been built, but because it was built.

MR. GORDON: That is correct. However, I would like to point out that during the war and for a considerable period after the war when there was no service from eastern Canada to Vancouver via the Panama Canal the rates were still maintained at a competitive level, although there is no service operating on the waterways, because the potential competition was there. If you recall, it raised the rate to the level and they would have got back in more quickly - -

MR. GUEST: The rates were all frozen during the war and they went up in 1947 22 per cent.

MR. GORDON: I have heard a lot of this. I sat through the complete hearings of the Transport Commission - -

THE CHAIRMAN: Do you agree the rates were frozen during the war?

MR. GORDON: Yes, but they were released shortly after the war.

THE CHAIRMAN: It pretty well takes the props from under your argument.

MR. GORDON: No. Shortly after the war the release was made, but as late as 1948 there was no effective competition.

THE CHAIRMAN: You told us during the war.

MR. GORDON: Yes, during the war.

THE CHAIRMAN: But your argument was not

applicable at all if the rates were frozen.

MR. GORDON: I do not think they were entirely frozen because there were many changes in freight rates during the war to meet various conditions.

THE CHAIRMAN: You agreed a few moments ago that they were.

MR. GORDON: I can show you the tariff supplement of changes during the war. Every rate on the railways was not frozen during the war, they were not allowed any general increase during the war. They were still varying their individual rates. In fact, I think some of the Panama Canal rates did go up.

THE CHAIRMAN: Well, we are getting a little off the track.

MR. GORDON: I think the Panama Canal has an example, I think we are really arguing on something which is not too relevant to the case. The fact is railways are and have always been susceptible to competition starting up.

THE CHAIRMAN: Mr. Gordon, you have told us that many times and we have heard it every time and we are quite aware of the position that the railways are susceptible to competition. Now, Mr. Bishop, you do not agree that your argument is based upon the assumption for your position to be maintained that there must be effective transportation system operating from McMurray through to Uranium City?

MR. BISHOP: I agree -- I am trying to say this backwards -- I agree that I don't agree. Your question puts me in a corner. Our position does not necessarily presuppose an existing and operating transportation system on the Athabasca. Now, I naturally agree completely that the more active the system the more vigorous the competition, but I hardly feel that the comparison your lordship made was valid when you said: Suppose the Panama Canal was blown up. To rebuild the Panama Canal would be an extremely expensive proposition. To rebuild services, to start competition, I submit would be comparatively small.

I think Mr. Grimble could speak a little better on that, because I am not an engineer. Could I ask Mr. Grimble to speak on it?

THE CHAIRMAN: Yes.

MR. GRIMBLE: From our brief you will see that we do not visualize the complete abolition of navigation on Lake Athabasca. We mention on page 28:

". . . during high water periods and for winter storage of vessels, etc."

In other words, the facilities at Waterways would still be active, they would still be there. It wouldn't be like blowing up the Panama Canal; the spur line would still be there, the dock would still be there. All that would govern is if the competitive rates were not satisfactory they would have to take the waterways at Peace Point. There is no

intention of cutting off the competition. So this facility is still there, and not only a potential threat but an actual threat.

THE CHAIRMAN: Would you still keep the barges there?

MR. GRIMBLE: My thought was that they would be there for possibly twenty, thirty years, that the slips would still be used, the workshops at Waterways would still be used.

THE CHAIRMAN: That would involve keeping all the equipment there, wouldn't it, the barges and the tugs?

MR. GRIMBLE: In the winter. They would winter them there, as they do now.

THE CHAIRMAN: And would they be kept there available for use along the river?

MR. GRIMBLE: The way I would think it would work out is that over a period of years there would be a transition. One of the governing things would be this cost of dredging, because in order to have such a transition it would be necessary to see that the cost of dredging would enter into the picture. You cannot supply free dredging and compare these things fairly. It would be a case of carriers being assessed on a ton-mile basis so that these costs are recovered and your freight then bears true cost. They would operate out of Waterways at a high water period, and as the low water periods come they would shift their

operation out of Peace Point. They have equipment better suited for deep draft, and this is better suited for Uranium City. They would still have these going back and forth serving Lake Athabasca. You are looking twenty years ahead. If you are looking twenty years ahead,possibly you are right; we may be flying jet aircraft and things might be different. But I can see the present equipment for a 20-year period. At any rate, it would be a slow transition.

THE CHAIRMAN: You contemplate the present equipment of Northern Transportation for the route from Peace Point to Uranium City?

MR. GRIMBLE: Yes, until they replace it with new equipment. They would probably end up with a balance.

THE CHAIRMAN: You think a 20-year period?

MR. GRIMBLE: I would guess they would write them off in a 20-year period. The most recent tugs are quite new, and I would imagine they would write them off in twenty years. I don't know this; it might be ten.

COMMISSIONER GAINER: I think this is as far as we can inquire into it, but you wouldn't visualize that competitive forces would automatically be operating if, for some reason or other, Athabasca waterways were closed off?

MR. GRIMBLE: It wouldn't be closed off; the water would still be there.

COMMISSIONER THOMSON: Didn't we have somebody here giving a brief saying that there would definitely be no water transportation south of Peace Point, that there would be no water transportation south of Peace Point?

MR. GRIMBLE: I wasn't here for all the hearings. It could be, yes.

MR. FEEHAN: It is page 1366, Mr. Boyd's evidence. He says: "We have gone on the assumption, and not without some basis for doing so, that the barge rate south of the Peace River, for practical purposes, would be discontinued." And he repeats himself on the next page.

COMMISSIONER THOMSON: That doesn't quite agree with your statement.

MR. GRIMBLE: No, I don't agree with that, and in our brief it is quite clear.

COMMISSIONER THOMSON: Who are we going to listen to? One says that the transportation would definitely not be taken off and the other says that there would definitely be no transportation there.

MR. GRIMBLE: I might ask if Mr. Boyd has ever been up there.

COMMISSIONER THOMSON: He is the one that is building the railway, isn't he? The difference between the gross and net profits has always been around $500,000. Wouldn't that pay for quite a

bit of dredging? Your figure for dredging was something like $200,000 a year.

MR. GRIMBLE: Yes, as a round figure. It is like snow plowing; when the spring does come it is gone. We don't want to spend money just for the sake of spending money. This is dredging, and is like snow plowing in a lot of ways. It would be better to have that money as extra profit rather than using it sweeping out the river. That is our whole objective, and this is why our scheme fits into that.

COMMISSIONER THOMSON: You are speaking of nobody or anything except Uranium City, I take it?

MR. GRIMBLE: No, we are speaking of the north country, the District of Mackenzie and the area under consideration, in every respect.

MR. BISHOP: I think it should be pointed out, sir, that this discussion arose from a line of questions about the competitive rates to Uranium City, and it so happens that the questions have all dealt with that.

THE CHAIRMAN: You contemplate the present equipment continuing in use for some time, some of the equipment, at least, being maintained at Waterways and some freight going from Waterways to Uranium City via Lake Athabasca?

MR. GRIMBLE: If this competitive element is necessary, sir, I would visualize that they would winter for the first years, that they would winter at

Fort McMurray, they would use their big shops there to overhaul, and this would be their starting point in the spring; they would load these barges in the first train movement and go on down the river, and probably the second movement would go to Peace Point.

When the water is high it would go from Waterways; at least the first movements in the spring would go from Waterways, and they would load up for their first movement in water at this point.

THE CHAIRMAN: Would they come back?

MR. GRIMBLE: Possibly one or two barges would come back, the smaller ones.

THE CHAIRMAN: How much freight would you assume would be carried by water?

MR. GRIMBLE: I would say this would be a matter of what the rate structure was. If it was cement, they would pick up cement for Peace Point, and if it was some other commodity it would probably be better picked up at Waterways.

THE CHAIRMAN: You mentioned sulphur, that it was all going by barge?

MR. GRIMBLE: Yes. They may take the first barge loads of sulphur from Waterways. The thing that would govern all of those would be the possibility of rate structure.

THE CHAIRMAN: I think Mr. Bishop took the position yesterday that he didn't think that the railroads were endeavouring to assume that they would get

$600,000 for the 100-odd thousand tons of freight.

MR. GRIMBLE: That is right, sir.

MR. BISHOP: That is right, sir.

THE CHAIRMAN: What would you think they should get?

MR. GRIMBLE: I don't know. But I would say if the dredging is eliminated they would have $200,000 to start with, and if there were other factors there may be another $100,000, giving $300,000. These are very round figures. I am not qualified to deal with this in detail. But they have $200,000 in the kitty to start with and another $100,000 here and there and an adjustment in the rates.

THE CHAIRMAN: You are dealing with the experts of two transcontinental railways when you speak on that assumption.

MR. GRIMBLE: I should think again that you should look at this competitive factor, that if they bear the cost of dredging and they find that their rates are such that people want to go for that rate, they will. We have maintained that the first movements during high water would go from Waterways, people would consign their freight whichever way they wanted it, and if a third carrier entered into the picture, the situation would adjust itself automatically over a period of years. It is as long as the dredging costs were assessed in the proper place. It is equivalent to building the track free for the railway

and saying we want you to compete with the trucks.

THE CHAIRMAN: You referred a few minutes ago to the fact that Northern Transportation made a profit of $700,000.

MR. GRIMBLE: Yes, sir.

THE CHAIRMAN: How much would you estimate comes from the business they do in taking freight into Uranium City, or could you estimate that?

MR. GRIMBLE: I would estimate about 40 per cent. Between 40 per cent and 50 per cent.

THE CHAIRMAN: You estimate that the $700,000 profit was from $280,000 to $350,000 attributable to Uranium City?

MR. GRIMBLE: Yes, sir.

THE CHAIRMAN: If all the dredging charges that you have estimated -- I think you estimated $200,000, didn't you?

MR. GRIMBLE: Yes.

THE CHAIRMAN: --- were charged against just the Uranium City freight and none against the freight that goes into the far north, it still leaves a substantial profit that Northern Transportation makes on its freighting to Uranium City, doesn't it?

MR. GRIMBLE: Yes, but it doesn't allow any reduction in rates, not a great deal.

THE CHAIRMAN: The railways say they need $600,000 to carry their freight to Peace Point.

MR. GRIMBLE: They would like $600,000.

THE CHAIRMAN: Yes. How much would you cut them below that? Have you any idea?

MR. GRIMBLE: I wouldn't want to say, sir. I think competition would look after this whole picture and all that would be required would be the dredging against the carrier and a franchise for a third carrier. But Uranium City would never be worse off than it is now, it would always be better, as long as things were followed as we have outlined in our brief.

THE CHAIRMAN: We have gone as far as we can in the question of what would happen to the costs and the people of Uranium City get the goods in. One of the reasons, one of the arguments in favour of building the railway along the eastern route as advanced to us is that more freight is available to the railway along the eastern route than along the western route. The railway companies advocated that, and several people have advocated that argument. I think it is advanced in your brief, isn't it?

MR. GRIMBLE: Yes.

THE CHAIRMAN: I have always thought, until today, at least, that meant profitable freight. What do you say to that?

MR. GRIMBLE: You are inferring that the railways if they do not get their $600,000.00 will be hauling at a loss?

THE CHAIRMAN: Yes, I am wondering about this. I should not say I am suggesting anything -

MR. GRIMBLE: I cannot answer that question.

THE CHAIRMAN: It seems to me it is a little awkward or inconsistent to say that one of the proposed merits of the eastern route is a lot of extra freight. Do you mean to be carried at a profit? Perhaps it might be carried at a loss. If we are going to have two competing systems working, Mr. Gordon emphasized so strongly that the more competition you get the lower the rates are, and he may have the freight being carried to Peace Point at a loss to the railways.

MR. GRIMBLE: There is the Fort Smith tonnage and the winter road tonnage to Uranium City. That is not a factor so far as this competitive water picture is concerned.

THE CHAIRMAN: But there is a lot going into Uranium City in the summer by water and I thought it was that freight the railway companies were referring to when they said they wanted $600,000.00 for it, and it was a great advantage to the proposed eastern route.

MR. GRIMBLE: It is a great advantage and it is a matter of what is a cost to the railway. I do not think the railway agrees with the principal of

charging what the costs are on commodities. I do not think this is the way they arrived at their rail rate. In other words, they do not work out costs of half a cent a ton mile and then add 10 per cent profit and 10 per cent overhead and so on. They do not arrive at their rate in that way. However, I think it is right if you were dealing strictly with operating costs you may be down to terms of half a cent a ton mile, so if they get one cent a ton mile it would be an advantage to have this extra tonnage. I think this is the picture that you only get an extra $100.00 hauling it that far over and above your costs and your trains are going there and the tracks are there anyway. That is an advantage to this route.

THE CHAIRMAN: That is, if the train is going anyway, it is an advantage to carry that rate for a low figure?

MR. GRIMBLE: Yes, sir. On this basis the railways will meet this competition and these rates will be set. We are not in a position to say what the rates will be and the only way we can assure fair assessment would take place is by virtue of having the carriers pay the dredging costs, just as the railways pay for their tracks and the possibility of a third carrier coming into the picture that these people won't co-operate.

THE CHAIRMAN: We cannot adjourn this hearing until we try that scheme.

MR. GRIMBLE: It is not hard to picture that this situation could come about.

THE CHAIRMAN: Well, you said that rail rates are not set necessarily on the basis of cost of building the railroad or operation, but is this not so, that we are contemplating the merits of two different proposed routes for the railway and when the argument has been presented to us, as it has on several occasions, there is all this extra freight from Uranium City available to the railroad. Would you not think it would be appropriate for us to consider whether that freight is going to be carried as a profit or not. Perhaps I am mistaken in that assumption.

MR. GRIMBLE: As I said, if it were carried at one cent a ton mile and operating costs were half a cent a ton mile it would be an advantage to the railway.

THE CHAIRMAN: Do you think the operating cost will be as low as half a cent a ton mile?

MR. GRIMBLE: I was thinking in terms of the rolling stock and not allowing for any other items.

THE CHAIRMAN: Have you anything to support the suggestion that operating costs are as low as half a cent a ton mile?

MR. GRIMBLE: I have heard of railway lines handling specialized goods into ore hauls where they have reduced their cost down to a figure of this order.

THE CHAIRMAN: I would be interested in

knowing these figures because the last figures suggested to us so far was by Mr. Jewitt who said he hoped they might get down as low as one cent, but he was afraid it would not be below one and a half cents.

MR. GRIMBLE: We were talking about two different things. I am sure he was talking in terms that it would bear capital cost, the overhead and other items. I think the figure I am talking about of half a cent would not pay any of the capital cost or interest on the investment nor the head office overhead, but it would be enough to return their operating cost and the rolling cost and operating cost on the line and give them something over and above this. The statement I made previously was that - -

THE CHAIRMAN: Mr. Grimble, could you get us something in support of that?

MR. GUEST: Mr. Chairman, I might clear up this point. This is the weigh bill analysis of the transport commissioners for 1958 and it says that the average revenue per ton mile for statutory grain, that is the Crow's Nest Pass rates, is half a cent.

THE CHAIRMAN: A ton mile?

MR. GUEST: Yes. Now, the railways maintain they are losing money on the Crow's Nest Pass rate. It has not been proven officially yet, but the Royal Commission on transportation will have a hearing on it, but they say they are losing money on half a cent a ton mile. I am sure Mr. Gordon would

agree with me on this point as an old railway man.

MR. GORDON: I do not know as I ever heard the railway say they were actually losing money on it as far as your operating costs are concerned. I have heard the railway say before the Board of Transport Commissioners that the grain trade was not paying its fair share of railway revenue. I have never actually heard them say they have lost money on it. In comparing the other traffic they say it is not paying its fair share. I was just looking through the document that Mr. Guest has and there are a number of rates not only in grain but in other products where the average ton mile is less than one cent per ton mile.

THE CHAIRMAN: Your suggestion is something less than one cent and Mr. Grimble is down to half a cent.

MR. GORDON: The average per ton mile earnings for all freight on the Canadian railways for all Canada in the year 1958 was 1.55 cents per ton mile. That includes, of course, statutory grain rates which are low and also - -

THE CHAIRMAN: For both Canadian railways?

MR. GORDON: Yes, the Canadian Pacific Railway and the Canadian National Railway. This is on the basis of the Board of Transport Commissioners weigh bill analysis car load of rail traffic.

THE CHAIRMAN: How much is it?

MR. GORDON: 1.55 cents.

THE CHAIRMAN: I was given 2.5 cents for one and 2.55 for the other, but it is 1.55?

MR. GORDON: That is the overall grand average for all traffic on the Canadian Pacific and the Canadian National on the basis of the Board of Transport Commissioners study. That is a one example I presume this would be a fairly accurate thing and I do not think it varies too far from the railways own figures.

MR. BISHOP: Could I point out that Mr. Grimble was asked to estimate a figure on something none of us know very much about. In other words, the railways actual operating costs and he ventured the figure of half a cent per ton mile. Now we seem to be attempting to defend that figure whereas I would submit that the point here is that for the purposes of this Commission we must assume that a railroad is to be built. If on either route there is tonnage available which can be carried at rates that pay anything more than the actual extra cost created by that tonnage, then that available tonnage is an advantage to that route. Our submission as regards the tonnage that goes to Uranium City is no more and no less than that. We are not attempting to claim a certain dollar figure, but if it can pay any part of the overhead expenses, even though it is nowhere near what might be considered its fair share of the overhead expenses, the mere fact that it can pay some is an advantage

which we would not have if that tonnage were not available. We also feel that the tonnage is available where the railroad must compete to get it if it is going to carry it.

MR. BALDWIN: I notice on page 51 of the brief of the Chamber of Commerce they seem to have the same opinion as Mr. Jewitt because they say:

> "The added cost to the Pine Point Mine to ship via Grimshaw would amount to over $200,000.00 yearly."

That is the same figure that Mr. Jewitt quoted.

COMMISSIONER GAINER: I think Mr. Bishop has summarized his position fairly well. This is what we are interested in and it is this essentially that the basis of the tonnage that is in sight, you would be prepared to say it is going to move and some of it may continue to move by water, some of it may go by rail or it all may go by rail depending on the comparative rate structure. But, you feel there is nothing implicit in your argument which would suggest that the operation would automatically cease at Waterways and move somewhere else?

MR. BISHOP: That is right, sir.

THE CHAIRMAN: There is another aspect of this that I wonder about. The freight we are talking about now which would be extra freight that would be carried by this railroad would be carried between McMurray and Peace Point?

MR. BISHOP: Yes.

THE CHAIRMAN: Now, if there was something at Peace Point for the railroad to pick up and carry on north to Pine Point - a train has started off from Waterways to run to Pine Point and it is going to go empty to Peace Point, to pick up a load there and carry it to the Pine Point which would probably be worthwhile to carry it at this half cent to Pine Point. However, it would be a different thing if the train has to be assembled to carry this freight.

MR. GRIMBLE: The picture on this is the trains will be going to Pine Point on a fairly regular basis. They will be going on a fairly regular basis to take the traffic to Bell Rock and Fort Smith. It will be going on a regular basis, of course, to pick up lumber at Fort Smith and Peace Point, and the cars we are talking about now for handling general freight to Uranium City would not be the ore cars which would come down from Pine Point.

THE CHAIRMAN: Could they not use ore cars to carry the freight?

MR. GRIMBLE: No.

THE CHAIRMAN: The freight to Uranium City does not get the benefit of the empty cars travelling north from Waterways to Pine Point to pick up ore?

MR. GRIMBLE: No, they get the benefit of riding along behind the train to Pine Point, they hook the cars on and away it goes. It is not a case

of a train going up empty, it would hook up cars and the cars to Pine Point and on the way back pick up the empties it left at Peace Point and bring them back. We would have a good north and south balance of traffic.

THE CHAIRMAN: Cars being empty going to Pine Point means a little lighter train, so the freight cars can be carried more readily to Peace Point?

MR. GRIMBLE: Yes. The significant thing is not the number of cars, but the total tonnage in the train, and in a case like this we would have back haul tonnage which would be general freight and merchandise for Uranium City and other products for Uranium City, Bell Rock and Fort Smith. On the return trip they would have those cars empty but full cars of ore, so we have a balanced load each way. We would be pulling loaded cars.

THE CHAIRMAN: So that is an advantage?

MR. GRIMBLE: Definitely.

THE CHAIRMAN: Could you tell me of any instances of freight of the type we are talking about going to Uranium City with general freight has ever been carried for one half cent a ton mile?

MR. GRIMBLE: There is one example I had in mind when I mentioned the half cent which is probably not applicable to this present labour situation and so on, but it is an interesting example of the 90 mile rail line to an iron mine in Monrovia. This operation is carried through a very simple

operation but it is carried through the operating cost at half a cent a ton mile.

THE CHAIRMAN: Where in Monrovia?

MR. GUEST: That is the capital of Liberia in North Africa.

MR. GRIMBLE: That is a 90 mile run and they have a very interesting run with ore cars and their costs are in the order of half a cent a ton mile.

THE CHAIRMAN: Labour conditions might be a little different?

MR. GRIMBLE: It is quite a bit different, but it is an illustration of what a simple operation can produce.

THE CHAIRMAN: Can you suggest anything in the United States or Canada where there is anything as low as half a cent a ton mile?

MR. GRIMBLE: No, other than the grain haul I do not know of any movement that is in that order. One thing we must not lose sight of is the incremental haul of lumber. If it tapers off to almost zero for another hundred miles they will haul lumber for a zero cost.

THE CHAIRMAN: Yes, but what does it average out at?

MR. GRIMBLE: Well, the same thing applies here, of course, with this additional incremental haul which is of the same nature as the lumber haul. In a lot of respects it is added incremental distance

if you were talking about a movement from Edmonton to Calgary of a commodity.

THE CHAIRMAN: Now, this is really the freight going into Uranium City that is going to go through Waterways anyway?

MR. GRIMBLE: That is what I am saying, the distance from Waterways north is an incremental.

THE CHAIRMAN: But the lumber carried for one hundred miles for nothing under the Spokane rates is lumber that would not be carried by Canadian Railways at all unless they allowed that special concession to the lumber people. Is that not so?

MR. GRIMBLE: The point I was getting at was that Canadian Railways are willing to haul another one hundred miles almost free in order to have this freight.

THE CHAIRMAN: In order to get extra business for the rest of their lines.

MR. GRIMBLE: Well, the same thing applies here. If it were going by truck up the highway they would be willing to haul it another 100 miles rather than have it go by some other means.

THE CHAIRMAN: We are talking about Waterways rate now. You are advocating - -

MR. GRIMBLE: Let us say the water then, they would be willing to have it hauled another 200 miles rather than have it transferred because this incremental haul is not as big a factor to them

as the freight.

THE CHAIRMAN: But they already have that freight on at Edmonton to Waterways. If by reducing the rate they could get something extra, by reducing the rate they get the freight for the railway from Edmonton to Waterways which they were otherwise not getting, I could follow your argument. For instance, suppose there was a truck route from here to Waterways and freight going via truck and by giving a cheap rate from Waterways to Peace Point the railways are able to get the benefit of the haul from Edmonton to Waterways I can see your argument, but I cannot follow -

MR. GRIMBLE: My argument is that the cost of hauling extra distance is less than hauling the initial distance.

THE CHAIRMAN: I agree with you.

MR. GRIMBLE: Just for argument, say you are going from Toronto to Edmonton with a load and you want it moved on to White Horse. In this case it is a through main line. Take the NAR, we have a movement from Edmonton to Dawson Creek and we want it moved on to Hines Creek, but the added cost of taking it on to Hines Creek per ton mile will be considerably less than the first movement. In other words, the rolling of another 50 miles is not very great. This is the point I was making.

THE CHAIRMAN: You think that would bring it down to half a cent a ton mile from Waterways to

Peace Point?

MR. GRIMBLE: It is operating only at operating costs at half a cent. I use that only to illustrate. If it costs half a cent a ton mile to roll the things on the truck and the railway gets the one cent it is an advantage to have that tonnage even if they just get one cent, providing the operating costs were half a cent.

THE CHAIRMAN: In Liberia they are half a cent a ton mile?

MR. GRIMBLE: I am just illustrating the point. The figures may be .6 or .7, I am trying to illustrate a point with figures.

THE CHAIRMAN: What disturbs me about this argument is, it seems to me you are establishing that the operating costs from Waterways north is bound to be considerably more than half a cent a mile. If the operating costs in Liberia where wages are as low as you say, maybe not as low as this half a cent ton, it must follow, must it not, that the operating costs on this railway are likely to be considerably more than half a cent a ton mile.

MR. GRIMBLE: I agree with that. If you want me to use an illustration I will use .7 cents a ton mile. I am trying to illustrate a point with figures, I am not trying to establish the operating costs of the railway. I will use other figures if you like.

THE CHAIRMAN: I thought you said, and maybe I misunderstood this, but I thought you said the Liberian Railroad travels at actual operating costs of half a cent a ton mile.

MR. GRIMBLE: It is actually a little less than that.

THE CHAIRMAN: The Liberian Railway is a little less than half a cent. What is it exactly?

MR. GRIMBLE: Just round figures, the message I had was a little less. I do not want to get into this subject, so I will use other figures.

MR. BISHOP: Mr. Chairman, may I interrupt? I think we have gotten off the track here. I think it would be much happier and time saving if Mr. Grimble had said, for instance, suppose the operating costs are 25 cents a ton mile, then we could go on to say as long as the rate was as much as 26 cents a ton mile, it would be worthwhile for the railway to carry that freight. Unfortunately, he, being an engineer, attempted to pick this hypothetical case, a figure which might be near the proper one but it was intended as an example for the sake of argument, not as a figure which we propose to support.

THE CHAIRMAN: I thought I understood his argument. I was trying to extract from the remarks he made a few facts. In addition to getting the benefit of his argument, I would like the benefit of any information he had, and I thought he said that a railroad could travel at half a cent a ton-mile, operating cost.

MR. BISHOP: Yes, but the facts you are extracting are not related to our argument.

THE CHAIRMAN: The railroad in Liberia does travel at half a cent a ton-mile.

MR. BISHOP: Yes.

THE CHAIRMAN: It seems strange that we have to go to Liberia, but that is the first figure we have had on operating a railway. We also know that grain is carried, owing to the statutory rate, at half a cent a mile. You feel, Mr. Grimble, that the actual operating cost of this railway north of Waterways would be something more than half a cent a ton-mile?

MR. GRIMBLE: I wouldn't want to venture an opinion on that, sir. I got too involved the last time.

THE CHAIRMAN: There is another matter I would like to pursue a bit, and that is the question of the freight that you think the railway would get that now goes to Fort Smith. You suggested before lunch, I think, that there were some reasons why the railway can carry freight cheaper than Northern

Transportation could carry it Bell Rock Harbour. Is now a proper time for you to give us the reasons why you think that is so?

MR. GRIMBLE: Well, the main reason is the -- you take the average operating cost for the average rate per ton of the water carrier -- like at Fort Fitzgerald it is 75 cents a hundredweight. That works out ---

THE CHAIRMAN: Before you go onto that, would you mind me repeating the question. Is this a convenient time for you to go into that question?

MR. GRIMBLE: I haven't developed it, but I could right here on my feet. I was going to illustrate how much higher they would be.

THE CHAIRMAN: You were going to tell us how the railway can handle it better than Northern Transportation.

MR. GRIMBLE: We are just giving you these two figures. It is 75 cents per hundredweight, which is 300 miles.

THE CHAIRMAN: That is Northern Transportation takes it there?

MR. GRIMBLE: Yes. This is their rate, plus 40 cents a hundredweight.

THE CHAIRMAN: Seventy-five cents a hundredweight to get it from Waterways to Fort Fitzgerald, that is 5 cents a ton-mile, and then they have 40 cents a hundredweight moving from Fort Fitzgerald to Fort Smith. Possibly we should add these two together and

divide by the distance. It is $1.15 per hundredweight, and this works out -- it is 325 miles -- 7.7 cents a ton-mile.

Now, without knowing anything about railway freight rates, I would think that the railway freight rate would be in the order of 2½ cents or 3 cents a ton-mile.

COMMISSIONER GAINER: 7.7 cents a ton-mile to Fort Smith, and that would be 5 cents a ton-mile to Fort Fitzgerald.

MR. GRIMBLE: Yes. It really doesn't enter into it. I shouldn't have taken the point.

COMMISSIONER GAINER: I am wondering what the effect of the portage is spread over the whole distance.

THE CHAIRMAN: Are you taking into account handling charges?

MR. GRIMBLE: Yes. That is the published rate.

COMMISSIONER THOMSON: That is $1.15 from Waterways to Smith?

MR. GRIMBLE: Yes.

COMMISSIONER THOMSON: What is it from Yellowknife to Waterways?

MR. GRIMBLE: I don't know.

MR. GORDON: Class 45, which is the comparable carload rate -- actually if you are talking about carloads you should reduce to Fort Smith by

10 cents, and your comparable rail rate would be $1.07.

COMMISSIONER THOMSON: What does that amount to per ton-mile, from Edmonton to Waterways? What is that per ton-mile?

MR. GRIMBLE: There is a correction in that figure. It is 7.3 cents a ton-mile.

MR. GORDON: Seven cents on the Edmonton to Waterways.

COMMISSIONER THOMSON: There is an awful difference in these figures. I still can't quite get this. You are talking about a cent a ton-mile when the railway is built and now 7 cents a ton-mile. If they are charging 7 cents a ton-mile to Waterways, why would you suggest more to Fort Smith?

MR. GORDON: Merely because it is an incremental haul.

COMMISSIONER THOMSON: If it takes 7 cents a ton-mile to get there, if you build another piece of railway you can go on for 6 cents. Where are you going to stop to get down to one cent?

THE CHAIRMAN: We are talking about different commodities.

COMMISSIONER GAINER: The 7 cents a ton-mile applies to Class 5.

MR. GORDON: It is Class 45, the old Class 5.

THE CHAIRMAN: Edmonton to Waterways is 7 cents a ton-mile.

MR. GORDON: Yes.

THE CHAIRMAN: What distance is that?

MR. GORDON: Three hundred miles, sir.

THE CHAIRMAN: How far is it from Edmonton to Lac le Biche?

MR. GRIMBLE: 132.3.

THE CHAIRMAN: Can you give me the rate per ton?

MR. GORDON: I haven't it here. I just happen to have the Edmonton to Waterways, but I would be glad to check it for you and give it to you in the morning.

MR. GUEST: Did you say 132 miles from Lac la Biche to Waterways?

MR. FOUKS: No, from Edmonton to Lac la Biche.

MR. GUEST: On Class 45 the rate would be 65 cents less 7 per cent.

THE CHAIRMAN: Would you and Mr. Gordon see if you can work this out and see if you can arrive at a figure?

MR. GORDON: 9.1 cents, sir.

THE CHAIRMAN: Are you in agreement with Mr. Guest on this figure?

MR. GORDON: I haven't been able to check the rates, and I think he is using the P.G. tariff.

MR. GUEST: Mr. Chairman, when this tariff was published they put this 7 per cent increase on. Now, to get the proper rate you have to reduce it by 7, due to the subsidy.

THE CHAIRMAN: 9.1 cents?

MR. GORDON: Yes.

THE CHAIRMAN: What is it from Lac la Biche to Waterways? It costs $12 a ton to take a ton of freight from here to Lac la Biche?

MR. GUEST: Class 45 freight, yes.

THE CHAIRMAN: How much does it cost to take it to Waterways?

MR. GUEST: Eighteen dollars, approximately.

MR. GORDON: That is $1.70 a hundredweight times 20 -- $20.14.

THE CHAIRMAN: $20.14?

MR. GORDON: Yes.

THE CHAIRMAN: And you call this incremental freight. The incremental freight from Lac la Biche to Waterways will be $20.14 a ton?

MR. GORDON: Incremental revenue.

COMMISSIONER GAINER: Should that figure not be $21.40?

THE CHAIRMAN: It looks to me like about 4.7 cents from Lac la Biche to Waterways. Did somebody else check that? That is the incremental revenue per ton-mile. Would you check that, Mr. Gordon?

MR. GORDON: Well, the gentleman here with the ---

MR. REGAN: $1.07 to Waterways, 60 cents to Waterways, and $9.40 a ton for 173 miles.

THE CHAIRMAN: $9.40 a ton?

MR. FEEHAN: I think we changed that figure to $9.40.

THE CHAIRMAN: What do you make it per ton-mile from Lac la Biche to Waterways?

MR. REGAN: 5.4.

THE CHAIRMAN: From Edmonton to Lac la Biche 9.1, and from Lac la Biche to Waterways 5.4, and then you want to come down to half a cent from there on to Peace Point?

MR. GRIMBLE: No, I never suggested that, I never intended that.

THE CHAIRMAN: It is what the railways might carry it or could carry it for?

MR. BISHOP: The question that you asked him is what he thought the railroad's approximate operating cost was for that extra distance, and he estimated half a cent a ton-mile; not the cost to the shipper but the cost to the railroad.

THE CHAIRMAN: Mr. Gordon has emphasized frequently that the incremental rate for an extra few miles is very low. Would you mind taking one or two instances? Let's see if we can get some instances.

Edmonton to Waterways, 305 miles, and the quickest way from Edmonton on the main line going east, say, and see what the rate is there per ton-mile and then see what the increment is for the next 220 miles.

MR. GORDON: I am afraid I have not the rate tariffs here to check these.

THE CHAIRMAN: Would you mind letting us have that tomorrow morning?

MR. GORDON: I would take the fifth class scale for distance from zero to say 2,000 miles and I will show you the incremental mileage for each distance and - I can do that, but it will take a little time. I will be glad to do it.

THE CHAIRMAN: Could you have that for us tomorrow morning?

MR. GORDON: If we are going to sit tonight it would be a little difficult.

THE CHAIRMAN: I do not think we will sit tonight, but if we can have it for tomorrow morning - I do not know how relevant it is but we are groping around in a lot of darkness talking about what can happen to these rates.

MR. GORDON: To find out what the incremental mileage is by taking rates and distances the rates start out on five mile blocks and then increase to ten and then to twenty, and then from about 200 miles on they go up on a basis of 25 miles per block. The rate is the same for the whole 25 miles and if you get one end or the other you get a difference in the ton mile.

THE CHAIRMAN: Mr. Grimble, you suggested when you talked about freight rates from Waterways

to Fort Smith the Northern Waterways is 7.3 cents a mile and you suggested the railway rate might be two and a half to three cents per ton mile.

MR. GRIMBLE: As you said before, it went down to four something and I think the next jump it would be nearly 300 miles, and I was thinking it might jump from 5.4 to 4.3.

THE CHAIRMAN: You are speaking of what is a normal incremental rate?

MR. GRIMBLE: Yes, sir.

THE CHAIRMAN: Considering that the freight originated at Edmonton?

MR. GRIMBLE: Yes. In this case I think it was just an axiom that it would revert and travel by rail rather than water, because it can do this 12 months of the year and on the basis of the discussion we have just had, it could move at less than the present water rate.

THE CHAIRMAN: That would mean then an additional tonnage to the railways going into Fort Smith that you consider would be profitable freight, and I think you calculated just a little while ago at something like 90,000 tons a year?

MR. GRIMBLE: Fort Smith traffic alone, the traffic is on the order of 12,000 tons for Fort Smith and we estimated possibly 8,000, 7,000 or 8,000 would go by winter road from Fort Smith to Uranium City and this would make a 20,000 tons move-

ment, just on this basis alone. We should consider the tonnage that would go north from Bell Rock and this would make up the total of 90,000.

THE CHAIRMAN: That is extra freight because it is freight that is going to go north anyway?

MR. GRIMBLE: That is right. This 20,000 tons is freight over and above the Waterways, Peace Point problem and over and above the Great Slave Lake problem.

THE CHAIRMAN: The railway companies in their brief advocated the eastern route because they said there was freight available to them over the eastern route which is not available to them over the western route. I have forgotten how much it was.

COMMISSIONER GAINER: Could I comment on that? I have just looked at those figures and their figure is an extra 80,000 tons, if you remember, the eastern route that would not be available on the western route. They estimate they would gross $600,000.00 a year on this which would be seven and a half dollars a ton on that. The 600,000 tons or - what would that figure be - $7.50? That was at page 23 of the railway brief.

MR. GRIMBLE: 3.4 cents a ton mile.

MR. BISHOP: The 220, was that not freight going to Peace Point?

COMMISSIONER GAINER: Waterways to Peace Point.

ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

MR. GRIMBLE: Some would go to Fort Smith, 20,000 tons to Fort Smith and probably 60,000 tons -

COMMISSIONER GAINER: What is the figure to Peace Point?

MR. BISHOP: 220.

MR. GRIMBLE: We could multiply 60,000 by 220 and 20,000 by 290 and this would give us an accurate figure. That would be 1,800 ton miles.

MR. BISHOP: That would be three and one third cents a ton mile.

MR. GRIMBLE: Yes, that is right.

COMMISSIONER GAINER: Then on Peace Point traffic assuming 60,000 tons to Peace Point -

MR. GRIMBLE: 60,000 to Peace Point and 20,000 tons to Fort Smith. Those are our estimates by the way.

COMMISSIONER GAINER: That is what I wanted to check. Theirs works out to, they have assumed an average revenue per mile of about three and one third cents.

MR. GRIMBLE: That pretty well checks the assumption I made that the Fort Smith traffic would be in the order of three cents to four cents a ton mile.

THE CHAIRMAN: Two and a half cents to three cents I thought you said.

MR. GRIMBLE: I will give you a broader range,make it from two to four cents. I do not want

to be pinned down.

THE CHAIRMAN: Could you look at this and see if you could give it to us tomorrow? The railway companies say they anticipate further freight available and I think that is in your brief too, somewhere.

MR. GRIMBLE: Yes.

THE CHAIRMAN: Now we have talked at some length about freights going into Uranium City. What would happen to that? I wonder if you could separate the freight that would be going into Fort Smith that the railway would carry and that is available - would be available to a railway along the easterly route and not available to it along the westerly route? Is that clear?

MR. GRIMBLE: Yes, we have those figures.

THE CHAIRMAN: Could you get them now?

MR. GRIMBLE: Yes. These are the figures I read out earlier and they would just have to be gathered in to categories that you want. What figures would you like?

THE CHAIRMAN: I was thinking of Fort Smith, that is the place where the railway can carry the goods for considerably less than Northern Transportation does.

MR. GRIMBLE: 17,000 tons into Fort Smith which includes the traffic for Fort Smith that will stay there and traffic that will go through Fort Smith to Uranium City in the wintertime.

THE CHAIRMAN: Is that 12,000 staying at

Fort Smith?

MR. GRIMBLE: It varies. Last year it was 10,000 and the year before it was 12,000, it varies within two or three thousand each year depending on what activities are going on. Last year it was 10,000 so we have 10,000 here. 7,000 we estimated would be the winter road traffic. This is just an estimate based on the fact that 7,000 goes to Yellowknife now.

COMMISSIONER GAINER: This was the winter rate operating to where?

MR. GRIMBLE: Uranium City, 7,000 tons winter road traffic to Uranium City. Then there was a lumber movement from Fort Smith, which I guessed earlier at 10,000 tons.

THE CHAIRMAN: Fort Smith to - -

MR. GRIMBLE: Fort Smith south and there would be a movement Fort Smith north. Now, you wanted the tonnages to Peace Point?

THE CHAIRMAN: Well, say the tonnage that the railroad would carry into Fort Smith, that is with freight that would be available to a railway along the easterly route and not to a railway along the westerly route.

MR. GRIMBLE: You have those figures now. Then we have tonnages which are - which pertain to the trans-shipment at Peace Point, and these are what we have discussed at length. These are the tonnages which I have stated earlier. If the railway only got

one cent a ton mile or one and a half cents a ton mile, they would be gaining over not taking the tonnage.

THE CHAIRMAN: That was going over to Uranium City?

MR. GRIMBLE: Yes sir. Do you want any figure for that?

THE CHAIRMAN: I think we have all those.

COMMISSIONER GAINER: Just one other point I would like to clear up for my own information. When we looked at the 7.3 cents per ton mile from Waterways to Fort Smith including the portage, that was based on the rate of 75 cents a hundred, was it not?

MR. GRIMBLE: Yes sir, plus the portage.

COMMISSIONER GAINER: I am told that the Northern Transportation rate structure is not very uniform, but would this 75 cents per hundred weight be a fairly representative figure for the mileage on their operation?

MR. GRIMBLE: It would be a fairly good figure, I think it is a fairly low figure.

COMMISSIONER GAINER: Do you remember what the figure is to Uranium City?

MR. GRIMBLE: $1.05 for less mileage, for 273 miles and in this case it is 75 cents for 300 miles.

COMMISSIONER GAINER: So that 75 cents per hundred weight in their rate structure is average or relatively low perhaps on the ton mile basis?

MR. GRIMBLE: Yes, it is a low rate.

THE CHAIRMAN: 75 cents for 300 miles?

MR. GRIMBLE: Yes, sir.

THE CHAIRMAN: But $1.05 to Uranium City.

MR. GRIMBLE: Yes, 273 miles to Uranium City.

THE CHAIRMAN: We have come now to the end of page 28 of your brief. Would you like to go on now with the section dealing with air transport and other forms of transportation or would this be a convenient time to adjourn.

MR. BISHOP: Whatever you say. I can carry on if you wish.

THE CHAIRMAN: Is it satisfactory to everybody else to go on for a while? Very well.

MR. BISHOP: There is at present an excellent airport with hard surfaced runways at McMurray. There is also an excellent airport at Fort Smith with long hard surfaced runways. Uranium City has an airport with paved runways. At Hay River there is a dirt landing strip with poor runways, which are closed a good part of the season due to rain and the spring breakup. Fort Vermilion has an unimproved grass landing strip.

The Eastern Railway Route shown on Map No. 2 would provide rail connection between Edmonton, Waterways and Fort Smith and allow the serving of these strategic airports in case of emergency or in the carrying out of commercial flying operations.

Fort Smith would thus play an important part as a distribution center by air, and with the railway to serve this airport during break-up and a freeze-up when road bans and lakes prohibit other menas of transportation, Yellowknife, Uranium City and Aklavik could be served by rail and air transport through Fort Smith.

THE CHAIRMAN: While you are on this, did you get the air freight rate from McMurray to Uranium City?

MR. BISHOP: Mr. Gordon was to get that for us at noon.

THE CHAIRMAN: Have you got the air freight rate from McMurray to Uranium City, Mr. Gordon?

MR. GORDON: Yes, right here. I phoned Pacific Western Airlines at noon and I was advised as follows: the air freight rate from Waterways and McMurray to Uranium City is $6 per hundredweight, and from Edmonton to Uranium City $12.01 per hundredweight.

THE CHAIRMAN: From McMurray to Uranium City?

MR. GORDON: Yes.

THE CHAIRMAN: Do you remember what that rate was that was quoted by Grimshaw Trucking from Fort Smith to Uranium City? How much a ton was that?

MR. GRIMBLE: We had a rate from Grimshaw Trucking, from Hay River to Yellowknife, and it was in the order of $3.20. It is in one of the exhibits.

THE CHAIRMAN: Didn't you point out to us that they suggest a rate?

MR. GRIMBLE: It is a truck rate.

THE CHAIRMAN: For the winter road that Grimshaw Trucking would build to Uranium City?

MR. GRIMBLE: Yes, $1.20 a hundredweight.

THE CHAIRMAN: So the air rates are

considerably higher than anything proposed for a combined rail-truck rate into Uranium City, aren't they?

MR. GRIMBLE: Yes, sir.

THE CHAIRMAN: That would seem so, Mr. Fouks, Mr. Baldwin?

MR. FOUKS: Yes, sir.

MR. GRIMBLE: Air traffic takes over on perishables and the movement of rush during breakup.

MR. BISHOP: Section 7: Integration of the Railway with otherforms of communication.

Waterways and Grimshaw are now both served by telephone. Fort Smith, Hay River, Uranium City, Yellowknife, Providence and Fort Resolution are served by radio telegraph. Alberta Government Telephones plans to serve Hay River by microwave from Peace River Town. Northwest Communications System, a part of the Canadian National Communications System proposes to carry service to Providence, Fort Rae and Yellowknife by land line during 1960. They further propose to serve Pine Point and Fort Resolution by VHF radio, and Hay River, Fort Smith, Fort Fitzgerald and Fort Chipewyan by a land line. Uranium City would be served by VHF radio from Fort Chipewyan. It is planned to carry out the latter part of this program in 1961 and 1962.

The construction of a railroad along the eastern route would permit a change in this program to save costs and simplify maintenance. Pine Point could be served on a land line along the winter road

from Hay River to Pine Point and the land line could be carried from Pine Point to Fort Smith along the railway right-of-way. Fort Smith could be connected to Uranium City by a land line along the proposed winter road. A land line could also be built from Fort Smith to Peace Point along the railway right-of-way to serve the new community that would be established there. Fort Chipewyan could then be served by land line or VHF radio from this point. This arrangement of combining the railways telegraph facilities and the telephone land lines would save clearing costs, distance to be constructed and construction costs and could save $200,000 to $300,000. There would be also the added saving in maintenance and improvements in service due to accessibility along the railway right-of-way twelve months of the year in contrast to trying tomaintain the 200 miles of land line from Hay River to Fort Smith along the winter road which is only accessible for transport four months of the year, and may in the future even be abdndoned as a winter road during these four months.

THE CHAIRMAN: Is there any difference here, any advantage for a great number of communities to have this communication here if a railway were to go in?

MR. GRIMBLE: The Alberta Government now proposes to put in a microwave system from Peace River, Fort Vermilion to Hay River, and the A.G.T. will take off from there. They have this under study,

this line around the lake and also this scheme in here. If the railways built along this route, they will undoubtedly have micro lines or telegraph to serve the railway operations, and this, by coincidence, falls in the same location, in the same place as this land line and the communication system that is supposed to be built in the next two years by Northwest Communications System, so we have the situation where the poles would be put up for the railway telegraph facilities and would be available to carry land lines. The cost for clearing the right-of-way would be eliminated throughout most of the system.

THE CHAIRMAN: You could put a microwave along the western route?

MR. GRIMBLE: Yes, along the railway route.

THE CHAIRMAN: So it is proposed to put in a microwave system. That is a system that doesn't require telegraph poles?

MR. GRIMBLE: Yes, but this is an area of high aurora borealis and they are reluctant to use VHF there and here, and, of course, the microwave system is quite expensive, very expensive, and it doesn't serve the ground. If you had a point from here to here it wouldn't be served. They have considered this microwave proposition and they have discarded it. They have considered it as an alternative. The Alberta Government favours the microwave, but the Northwest Communications System have

put in a report which recommends this land line. It is a very great saving in cost, maintenance and other factors.

MR. BALDWIN: May I point out that I have been in touch with the subject and the microwave coming along the west route which Mr. Grimble suggests might be eliminated would have the result of serving the three thousand people in Fort Vermilion, in that district, who have no telegraph line, and one of the reasons for that particular radio microphone was to serve these three thousand people, and the elimination of the microwave system would automatically eliminate the service which is proposed for them. The brief suggests it would be cheaper to build it by land line along the eastern route and eliminate this expensive, costly microwave.

MR. GRIMBLE: Your microwave system is a part of this system and it would take over from the system which is proposed from Peace River up. This is the essential part of the whole scheme.

MR. BALDWIN: I was wrong; you still propose the microwave system along the western route?

MR. GRIMBLE: Yes.

MR. BALDWIN: You said on page 31 -- you referred to the expense of the microwave and you said that this arrangement would save clearing costs, and so on. I thought that was on the basis of eliminating the microwave entirely.

MR. GRIMBLE: There is one further feature over and above the land line communications. It won't

come up further in the brief, so I thought I might mention it here. This power project at Smith seems, by virtue of the present studies, tobe worthy of such consideration that we shouldn't overlook the possibility in the not too distant future of this area being the route of a hydro line and consequently access by rail to facilitate the building of the hydro line.

THE CHAIRMAN: Would this be a good time to adjourn?

MR. BISHOP: Well, Mr. Chairman, the next two pages are the conclusion of the integration of the transport network. Maybe I could carry through that?

THE CHAIRMAN: If you read those tomorrow morning to us it will refresh our memories as to what has been said after we have had a chance to review our notes we have made today.

MR. BISHOP: That is fine, Mr. Chairman.

THE CHAIRMAN: We will adjourn until ten o'clock tomorrow morning.

---Whereupon at 5.00 p.m. the hearing adjourned until 10.00 a.m., Thursday, October 8th, 1959.